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CR-165169

**APPLICATIONS TECHNOLOGY SATELLITE
And
COMMUNICATIONS TECHNOLOGY SATELLITE
USER EXPERIMENTS FOR 1967-1980**

**REFERENCE BOOK
VOLUME II**

**Nicholas A. Engler
John F. Nash
Jerry D. Strange**

**UNIVERSITY OF DAYTON
RESEARCH INSTITUTE
DAYTON, OHIO 45469**

**August 1980
FINAL REPORT**

**PREPARED FOR:
NASA-LEWIS RESEARCH CENTER
CLEVELAND, OHIO 44135**

NAS3-21370

(NASA-CR-165169-Vol-2) APPLICATIONS
TECHNOLOGY SATELLITE AND COMMUNICATIONS
TECHNOLOGY SATELLITE USER EXPERIMENTS FOR
1967-1980 REFERENCE BOOK, VOLUME 2 Final
Report (Dayton Univ., Ohio.) 370 p

N81-12136
Unclass
G3/15 29336



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1. Report No. CR-165169		2. Government Accession No.		3. Recipient's Catalog No.	
4. Title and Subtitle APPLICATIONS TECHNOLOGY SATELLITE AND COMMUNICATIONS TECHNOLOGY SATELLITE USER EXPERIMENTS FOR 1967-1980 REFERENCE BOOK, VOLUME II				5. Report Date AUGUST 1980	
				6. Performing Organization Code	
7. Author(s) Nicholas A. Engler John F. Nash Jerry D. Strange				8. Performing Organization Report No. UDR-TR-80-100	
				10. Work Unit No.	
9. Performing Organization Name and Address University of Dayton 300 College Park Dayton, Ohio 45469				11. Contract or Grant No. NAS3-21370	
				13. Type of Report and Period Covered FINAL REPORT	
12. Sponsoring Agency Name and Address National Aeronautics and Space Administration Washington, D.C. 20346				14. Sponsoring Agency Code	
15. Supplementary Notes Project Manager, L.C. Gentile, Communication and Application Division NASA-Lewis Research Center, Cleveland, Ohio					
16. Abstract <p>ATS-1, the first Applications Technology Satellite, was launched by the National Aeronautics and Space Administration in 1966. Since then ATS-3, 5 and 6, and the Communication Technology Satellite (CTS) have been successfully used for a large number of communications experiments and demonstrations. This report summarizes the important user experiments conducted during the fourteen year period from 1966 to 1980.</p> <p>The report is in the form of a Reference Book and is divided into four volumes. Volume I contains a description of each of the satellites and a brief summary of each user experiment. Also in this volume is a Cross Index of User Experiments sorted by various parameters and a listing of keywords versus Experiment Number.</p> <p>In Volume II the experiments are grouped by type of service offered; for example, education, health services, and data transmission. A bibliography of reports by accession number and by author are also presented. In this volume a listing of keywords versus report number is presented.</p> <p>Volume III contains questionnaires received from the satellite users. Questionnaires were sent to users in 1976, 1977 and 1979. The forms reflect user viewpoints of the systems.</p> <p>During the course of this work a number of reports, papers and articles were obtained and catalogued into an information retrieval system. Abstracts of some of these documents are listed in Volume IV.</p> <p>This report is a continuation of a previous NASA Contractor's Report performed under Contracts NAS3-19699 and NAS3-20392</p>					
17. Key Words (Suggested by Author(s)) Alaska, Appalachia, ATS-1, ATS-3, ATS-5, ATS-6, Broadcasting, Communications, CTS, Data Transmission, Education, Health, Meteorology, Millimeter Wave, Peacesat, Ranging, Telecommunication, Wave Propagation.			18. Distribution Statement UNCLASSIFIED - UNLIMITED		
19. Security Classif. (of this report) UNCLASSIFIED		20. Security Classif. (of this page) UNCLASSIFIED		21. No. of Pages 366	
				22. Price*	

* For sale by the National Technical Information Service, Springfield, Virginia 22161

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LIST OF ACRONYMS AND ABBREVIATIONS

AAHS - Alaska Area Native Health Service
AASA - American Association of School Administrators
A/C - Aircraft
AEC - Atomic Energy Commission
AERO SAT - Aeronautical Satellite Program
AESP - Appalachian Education Satellite Project
AFCRL - Air Force Cambridge Research Laboratories
AGREE - Advance Ground Receiving Equipment Experiment
AHA - American Hospital Association
AID - Agency for International Development
AII - Allied Industries, Inc.
ALC - American Lutheran Church
ALFE - Alaska Feed Experiment
ALOHA - Experimental UHF Radio Packet Switched Computer
ALVA - Alaska/Veterans Administration
AMA - American Medical Association
APT - Automatic Picture Transmission
ARC - Appalachian Regional Commission (also Ames Research Center/NASA)
ARINC - Aeronautical Radio Incorporated
ARPANET - Advanced Research Project Agency Computer Network
Satellite System
ASTP - Apollo Soyuz Test Project
ATC - Air Traffic Control
ATS - Applications Technology Satellite
BBC - British Broadcasting Corporation
BOLD - Basic Oral Language Development
BOMEX - Barbados Oceanographic Meteorological Experiment
CAI - Computer Aided Instruction
CNAE- Comisso Nacional De Atividades Espaciais
C/O - Check Out
COMSAT - Communications Satellite Corporation
CPB - Corporation for Public Broadcasting
CRC - Communication Research Center (ANADA)
CRT - Cathode Ray Tube
CTS - Communications Technology Satellite
CW - Continuous Wave
DCP - Data Collection Platform
DEA - Drug Enforcement Agency
DHEW - Department of Health, Education, and Welfare
DICE - Digitally Implemented Communications Experiment
DISP - Department of Interior Satellite Project
DOC - Department of Commerce
DOD - Department of Defense
DOI - Department of Interior
DOT - Department of Transportation
DRI - Desert Research Institute
ECG - Electrocardiogram
ERDA - Energy Research Development Agency- now (DOE) Department of
Energy
ERP - Effective Radiated Power
ESA - European Space Agency
ESSA - Environmental Science Service Administration

LIST OF ACRONYMS AND ABBREVIATIONS (Cont'd)

ESTEC - Centre European Recherche Et De Technologie Spatiale
ETV - Education Television
EVM - Earth Viewing Module
FAA - Federal Aviation Administration
FDMA - Frequency Division Multiple Access
FLTAC - Fleet Analysis Center (Navy)
FM - Frequency Modulation
FSK - Frequency Shift Keying
FSU - Florida State University
GE - General Electric Corporation
GEOS - Geosynchronous Experimental Observation Satellite
GHz - Gigahertz
GMT - Greenwich Mean Time
GOES - Geostationary Operational Environmental Satellite
GSFC - Goddard Space Flight Center
GTE - General Telephone and Electronics
HET - Health/Education Telecommunications
HEW - Department of Health, Education and Welfare
HF - High Frequency
IEEE - Institute of Electrical and Electronic Engineers
IHADRAS - Interferometer High-Speed Data Rate Acquisition System
IHETS - Indiana Higher Education Telecommunications System
IHS - Indian Health Service
ISOS - International Southern Ocean Studies
ITT - International Telephone and Telegraph
JCET - Joint Council on Educational Telecommunication
KHz - Kilo Hertz
KTUH - Radio Station
KUAC - (NPR-National Public Radio) Radio Station in Alaska
KVZK - Public Broadcasting Television in Samoa
LeRC - Lewis Research Center (also LRC)
LHC - Lister Hill Center
MARAD - Maritime Administration
MARSCAN - Maritime Satellite Communication and Navigation
MATE - Mobile Analysis and Telecommunications Experiments
MCC - Maritime Coordination Center
MEDLINE - Medical Information Retrieval System
MENEHUNE - Central Communication Processor for the ALOHA System
MHz - Mega Hertz
MMW - Millimeter Waves
MOT - Ministry of Transportation (Canada)
MSHC - Mountain States Health Care
MSSCC - Multicolor Spin Scan Cloud Camera
NAFEC - National Aviation Facilities Experimental Center
NASA - National Aeronautics and Space Administration
NBC - National Broadcasting Company
NBS - National Bureau of Standards
NCAR - National Center for Atmospheric Research
NCAST - Nursing Child Assessment Satellite Training
NCER - Northern Center for Educational Research
NEA - National Education Association
NESS - National Environment Satellite Service
NHK - Nippon Hoso Kyokai
NIAID - National Institute of Allergy and Infectious Diseases
NIH - National Institute of Health
NLM - National Library of Medicine

LIST OF ACRONYMS AND ABBREVIATIONS (Cont'd)

NOAA - National Oceanic and Atmospheric Administration
NORPAX - North Pacific Experiment
NPR - National Public Radio
NRL - Naval Research Laboratory
NSF - National Science Foundation
NSTL - National Space Technology Laboratories
OECA - Ontario Education Communications Authority
ONR - Office of Naval Research
OPLE - Omega Position Location Experiment
OSU - Ohio State University
OT - Office of Telecommunications
PCM - Pulse Code Modulation
PDM - Pulse Duration Modulation
PEACESAT - Pan-Pacific Education and Communications Experiments
by Satellite
PET - Portable Earth Terminal
PLACE - Position Location and Aircraft Communication Equipment
P/N - Phase Difference Navigation
PRG - Project Office Goddard
PRJ - Project Office Headquarters
PSK - Phase Shift Keying
PSSC - Public Service Satellite Consortium
RCA - Radio Corporation of America
RF - Radio Frequency
RMS - Root Mean Square
RRL - Radio Research Laboratory
R/V - Research Vessel
SALINET - Satellite Library Information Network
SAMSO - Space and Missile Systems Office
SAO - Smithsonian Astronomical Observatory
SAPPSAC - Spacecraft Altitude Precision Pointing and Showing
Adaptive Control
SAR - Search and Rescue
SBC - Southern Baptist Convention
S/C - Satellite
SECA - Southern Educational Communications Association
SHF - Super High Frequency
SITE - Satellite Instructional Television Experiment (India)
SSB - Single Sideband
SSCC - Spin Scan Cloud Camera
SSRA - Spread Spectrum Random Access
TDRE - Tracking and Data Relay Experiment
TEAM - Televised Education Applied to Montana
TET - Transportable Earth Terminal
TOT - Terminal of Tomorrow
TRUST - Television Relay Using Small Terminals
TSC - Transportation System Center
TTY - Teletype
TV - Television
TWT - Traveling Wave Tube
UA - University of Alaska
UCLA - University of California at Los Angeles
UDRI - University of Dayton Research Institute

LIST OF ACRONYMS AND ABBREVIATIONS (Cont'd)

UF - ATS/CTS User Form
UHF - Ultrahigh Frequency
USAF - United States Air Force
USASCA - United States Army Signal Communications Agency
USCG - United States Coast Guard
USNS - Nasa Ship
USP - University of the South Pacific
UW - University of Washington
UWI - University of the West Indies
VA - Veterans Administration
VERB - Victor Electrowriter Remote Blackboard
VHF - Very High Frequency
VIDAC - A Westinghouse system for compressing audio-visual signals
VLBI - Very Long Baseline Interferometry
VLF - Very Low Frequency
VPI - Virginia Polytechnic Institute
WAMI - Washington, Alaska, Montana, and Idaho Medical Programs
WARC - World Administration Radio Conference
WEFAX - Weather Facsimile Experiment
WHOI - Woods Hole Oceanographic Institute
WMVS - Television Station Milwaukee, Wisconsin

VOLUME 2
SECTION 1
INTRODUCTION

All information contained in Volume One can be considered as data relevant to the origin of the experiment, i.e. initial data. In contrast, Volume 2 contains information relevant to the results of the experiment.

The information contained in this volume is an outgrowth of earlier work by the University of Dayton Research Institute (see Accession No. 765 and 785) in compiling a data base of uses made of the Applications Technology Satellites (ATS) and the Communication Technology Satellite (CTS). The information contained in this volume has come primarily from reports written about the experiment or demonstration. The reports that have been accumulated during the course of this work are identified by an accession number and the titles of the reports are listed in Section 3 of this volume. Over 750 documents have been obtained and catalogued, of which, approximately 650 abstracts have been made. The abstracted documents are presented in Volume IV. All bibliographic material is stored on I.B.M. cards and can be searched and listed for various categories such as author and report title.

Another source of information on user experiments contained in this volume is the users questionnaires. The questionnaires were obtained from surveys of ATS and CTS users in 1976, 1977, and again in 1979 and are presented in Volume III.

The information contained in this report is structured to allow the reader to enter into the report at any place depending on need and initial information, and thus proceed to any other part of this report for further information.

SECTION 2

SUMMARY OF USER EXPERIMENTS GROUPED BY APPLICATION CATEGORY

This section contains a detailed summary of the applications experiments on the satellites. In Volume One the basic unit was the experiment. However, many experiments had many diverse parts and each part tended to reflect a different application of satellite communication technology. These applications are the important product of the satellite program and hence should be clearly described and documented. Hence, the main emphasis here is the application of the experiment. For example, the HET experiment had many parts and further each part had many different applications. This section is oriented toward applications but enough information is given so that the reader can tie each application to a particular experiment. Because of the wide variety of applications, the experiments are grouped into the following categories.

- 2.1 Aircraft Communications
- 2.2 Broadcasting
- 2.3 Communications
- 2.4 Data Transmission
- 2.5 Education
- 2.6 Health Services
- 2.7 Maritime Communications
- 2.8 Meteorology
- 2.9 Ranging and Position Fixing
- 2.10 Satellite Environment
- 2.11 Time and Frequency Dissemination
- 2.12 Wave Propagation

Each of these categories is further divided into a number of subcategories, which are listed in alphabetical order. For instance, the education category is subdivided into adult, college, CAI, government, library, medical, miscellaneous education, and primary. Because of overlap in categories some experiments are listed in more than one category. For instance, ECG transmissions are listed both under Health Services and Data Transmission.

The user experiments are listed in a tabular form which includes the location, experimenter, satellite, description, and time frame of the experiment. The numbers in the column labeled REF.NO. refer to UDRI accession numbers of reports that are pertinent to the experiment. The numbers in the column labeled EXP.NO. refer to NASA experiment numbers as listed in Volume 1, Section 2.

2.1 AIRCRAFT COMMUNICATIONS

This section contains those experiments dealing with voice and data transmission to and from aircraft. A large part of this experimentation was directed toward the development of air traffic control system. Experiments were categorized as antenna design, multipath fading, and voice and data transmission.

AIRCRAFT COMMUNICATIONS

LOCATION	AGENCY OR SPONSOR	SAT.	DESCRIPTION	TIME FRAME												UD ACC. NO.	EXP. NO.	
				69	70	71	72	73	74	75	76	77	78	79				
North Atlantic & U.S.	Maxing INOT/TSC INOT/FAA USCG Canada NSA	ATS-6	<u>ANTENNA DESIGN</u> Three different aircraft antennas were evaluated; a slot-dipole antenna, an electrically steerable microstrip phased array, and a single microstrip element. Only the slot-dipoles were satisfactory for AEROSAT system. Prototype of an L-band airborne antenna was tested on the ESA Comet. Antenna exceeded desired 4 db gain for elevation angles from 14° to 40°. Follow-up tests on two linear phased array L-band antenna systems that were improved models of antennas tested during the previous years. Design and development of an L-band microstrip phased array antenna. The FAA KC-135 was used for testing and evaluation.												549,552 686,687 734,775 778,988	657 664		
																	806	657
																	988	
U.S.	Ball Bros. Res. Corp.	ATS-6													791	664		
Ocean	INOT/FAA	ATS-1	<u>MULTIPATH FADING</u> Aircraft communication test involving 10 hours of data recording. Results indicate that multipath propagation is a serious problem in aircraft communications via satellite. Tests to evaluate use of CHMP modulation to combat multipath effects and Doppler shifts. Modulation rate of 1200 bps was used. Error rate was zero for 40% of the transmissions and 10% for 65% of the transmissions.													1,289		
																		135,307
England	Royal Aircraft Establishment	ATS-1																

AI (CRAFT COMMUNICATIONS (CONT'D)

LOCATION	AGENCY OR SPONSOR	SAT.	DESCRIPTION	TIME FRAME												UD ACC. NO.	EXP. NO.
				69	70	71	72	73	74	75	76	77	78	79			
			<u>MULTIPATH FADING (CONT'D)</u>														
Ocean	Boeing DOT/FAA	ATS-5	Sea-reflected and direct data were obtained for satellite elevations between 9° and 31°. Determination of multipath signal amplitude statistics, power spectral density, polarization properties and selected fading characteristics. Fading was in agreement with predictions.													288,556 251	
North Atlantic & U.S.	Boeing DOT/TSC DOT/FAA USCG Canada ESA	ATS-6	Test probes of the oceanic multipath were conducted on eighteen occasions, covering elevation angles from 3° to 32° and a variety of sea conditions. Multipath tests were also run for variable terrain conditions.													549,552 657 670,686 664 687,734 777,778 844,988	
Canada	CRC	ATS-6	Measure low elevation sea scatter on L-band and VHF signals and measure signal fading at C-band and MMW.													See U.F. 657 2-030	
			<u>VOICE & DATA TRANSMISSION</u>														
Western Hemisphere	DOT/FAA Arinc COMSAT Airlines	ATS-1 ATS-3	A series of aircraft two-way communications tests involving various airlines. Tests were performed under normal flight conditions and during maneuvers to determine aircraft orientation affects on satellite communication.													28,294 185 295	
Western Hemisphere	EG&G	ATS-1	Communications experiments were conducted during a series of auroral flights at high altitude and at conjugate geomagnetic points in opposite hemispheres. Satellite was used to communicate with aircraft.													1,20,21 232 281	
North Atlantic	ARINC	ATS-3	ARINC/Airlines test over Atlantic Ocean involving a TWA Boeing 707 equipped with a Bendix low-profile quasicircular polarized antenna and Bendix STACOM radio equipment. Tests were made during periods of intense solar flare activity.													174,176 185 240	

AIRCRAFT COMMUNICATIONS (CONT'D)

LOCATION	AGENCY OR SPONSOR	SAT.	DESCRIPTION	TIME FRAME										UD ACC. NO.	EXP. NO.	
				69	70	71	72	73	74	75	76	77	78			79
			<u>VOICE & DATA TRANSMISSION (CONT'D)</u>													
Pacific Northwest	ARINC Airlines Pan Am	ATS-1 ATS-3	Flight tests of the 566 STACOM transceiver and a 500 watt transmitting power amplifier during predelivery of Boeing 747 to Pan American. Communication with ground station was through ATS-1 and ATS-3. Voice communication was classified as good to strong.			■									13	185
North America	General Electric	ATS-3 ATS-5	A number of experiments to evaluate communications reliability and position fixing accuracy.				■								37,236 569,632 640	261
Western Hemisphere	Telcom, Inc	ATS-1	Test of effectiveness of satellite in maintaining voice communication between two aircraft and between an aircraft and a ground station in opposite hemispheres. Performance was marginal.				■								30	
U.S.	Westinghouse NASA/GSFC FAA Canada ESA	ATS-6	First successful L-band voice test. Involved communication between ground station and aircraft Canadian Jetstar. Other communication involved an FAA KC-135 and an ESA Comet.						■						670	657 664
North Atlantic & U.S.	Boeing DOT/TSC DOT/FAA USCG Canada ESA	ATS-6	Four voice modulation techniques were tested: (1) adaptive narrowband frequency modulation (2) Hybrid No. 1 (Q-M/PSK) (3) Hybrid No. 2 (PDM/PSK) (4) Adaptive delta voice modulation. All modems except (1) achieved in excess of 70% PB work intelligibility at 43dB-Hz.						■		■				549,552 670,686 687,734 776,778 809 844,881 988	657 664
North Atlantic & U.S.	Boeing DOT/TSC DOT/FAA USCG Canada ESA	ATS-6	Five digital data modems, each operating at 1200 bits/sec, were evaluated at L-band for bit-error-rate and error burst behavior. Modem performance was evaluated over a range of flight geometrics and carrier-to-noise power density ratio using operational slot-dipole antennas.						■						549,552 670,686 687,734 776,778 844	657 664

AIRCRAFT COMMUNICATIONS (CONT'D)

LOCATION	AGENCY OR SPONSOR	SAT.	DESCRIPTION	TIME FRAME										UD ACC. NO.	EXP. NO.	
				69	70	71	72	73	74	75	76	77	78			79
			<u>VOICE & DATA TRANSMISSION (CONT'D)</u>													
North Atlantic	Canada/CRC	ATS-6	Improved versions of voice modulation techniques tested during the previous year were tested and compared to a narrowband frequency modulation system under varying conditions.									■			988	
Alaska	NASA/LRC	CTS	Ice flow data gathered by a C-130 equipped with side-looking radar is transmitted via GOES satellite to NASA/LRC. Data is annotated to show ice coverage and thickness and transmitted via CTS to Barrow, Alaska.									■			740,780 879	CTS-22

2.2 BROADCASTING

Broadcasting experiments refer to one-way satellite transmissions in which the audience was not expected to respond. Most of these experiments were run in conjunction with established broadcast stations. Both audio and video broadcasts have been transmitted.

The Satellite Instructional Television Experiment (SITE), which was conducted by the government of India, was perhaps the most extensive effort in broadcasting. Considerable broadcasting experience was also obtained in Alaska.

BROADCASTING

LOCATION	AGENCY OR SPONSOR	SAT.	DESCRIPTION	TIME FRAME												UD ACC. NO.	EXP. NO.
				69	70	71	72	73	74	75	76	77	78	79			
			<u>BROADCASTING</u>														
Mexico	B.B.C.	ATS-3	Video broadcast of 1968 summer olympics from Mexico City to Europe.												1,58		
U.S.	Hughes CPB	ATS-1 ATS-3	A transcontinental interconnection experiment using ATS-1 and ATS-3 to relay ETV programs between East and West Coasts. Primary objective was to evaluate the performance of a transcontinental satellite link for video. Secondary objective was to evaluate reception by medium size receivers in urban setting. Demonstrated both objectives.												28,38 158,159		
Hawaii	Univ. of Hawaii	ATS-1	Radio station KTUH broadcast voice message from Chancellor of University of Hawaii via ATS-1 to South Pacific area. Marked the beginning of PEACESAT network.												12 235		
Alaska	State of Alaska NPR	ATS-1	NPR-KUAC Interconnect carried the program "All Things Considered" to Alaskan villages. Programming was marginal because of technical difficulties. Voice communication.												34,46 61 227		
Alaska	State of Alaska	ATS-1	Local news from the villages in Alaska and world news broadcast to villages in Alaska network. Voice communication.												49 227		
India	Government of India	ATS-6	The Satellite Instructional Television Experiment (SITE). Special programs developed in India on family planning, agriculture, and nationalism were broadcast daily to approximately 2400 rural villages. Purpose was to evaluate effect of TV in promoting rural development. Over 1200 hours of programs were broadcast.												255,532 538,706 804,826 896,983 647		

BROADCASTING (CONT'D)

LOCATION	AGENCY OR SPONSOR	SAT.	DESCRIPTION	TIME FRAME												UD ACC. NO.	EXP. NO.
				69	70	71	72	73	74	75	76	77	78	79			
			<u>BROADCASTING (CONT'D)</u>														
Puerto Rico Virgin Isl.	Project Look-Up Inc.	ATS-6	Broadcast health, education, and cultural and moral programs to Puerto Rico and Virgin Islands rural population. To explore concept of using TV to bring higher standard of living. Programs accompanied by work materials. No interactive capability.												764	660	
U.S.	NASA/GSFC NHK (JAPAN)	CTS	During the Adv. Grd. Rec. Equip. Experiment (AGREE) Thirteen sets of low-cost ground equipment were tested for satellite use. 2.5-m, 1.6-m and 1.0-m antennas and associated receivers were tested.												780,792	CTS-20	
U.S.	COMSAT NBC	CTS	Bicentennial TV transmission from Yellowstone National Park to NBC in NY for "Glorious Fourth" programs.												923		
Southwestern U.S.	COMSAT SECA	CTS	Transmitted Scottish games from Grandfather Mtn., N.C. to Southern ETV network.												923		
U.S. Samoa	PSSC	ATS-6	The Samoa Feed (SAMFE) Experiment involved the delivery of public broadcasting programming directly to Samoa. Station KVZK was the local distributor.												897,922	343 672	
West Indies	University of the West Indies	ATS-3 ATS-6	Broadcast educational programs to citizens in West Indies. One-way video and two-way audio.													333 663	
Alaska	Alaska	ATS-6	In the Alaska Feed Experiment (ALFE) Public Broadcasting System programs are broadcast to Fairbanks and Anchorage during prime time.												530,922 897	661	

BROADCASTING (CONT'D)

LOCATION	AGENCY OR SPONSOR	SAT.	DESCRIPTION	TIME FRAME												UD ACC. NO.	EXP. NC.
				69	70	71	72	73	74	75	76	77	78	79			
			<u>BROADCASTING (CONT'D)</u>														
U.S.	F.C.C.	CTS	Terminal of Tomorrow (TOT) was an outgrowth of project AGREE. During the experiment five receive only terminals were tested for T.V. reception. Accomplished first satellite-to-home T.V. reception.											847	CTS-30		
Eastern U.S.	PSBC Station WTVS	CTS	Congress representatives in Washington, D.C. and local leaders in Milwaukee discussed economic issues. WTVS broadcast the program to the public on channel 10.											877	CTS-21		

2.3 COMMUNICATIONS

Many of the ATS demonstrations involved the use of the satellite in a support role to a scientific experiment. Other demonstrations were basically of a conference nature and could not be properly called education. ATS and CTS support and conference activities are summarized in this section. Also included in this section are satellite communications demonstrations that involve library services, transportable terminals and video relay.

COMMUNICATIONS

LOCATION	AGENCY OR SPONSOR	SAT.	DESCRIPTION	TIME FRAME												UD ACC. NO.	EXP. NO.
				69	70	71	72	73	74	75	76	77	78	79			
			<u>CONFERENCE</u>														
Alaska	State of Alaska	ATS-1	A series of programs sponsored by native organizations. Two-way voice communication on issues of interest to Alaskan natives.												49, 148	227	
Pacific	Univ. of Hawaii PEACESAT Network	ATS-1	A large number of and variety of person-to-person voice communications have been transmitted over PEACESAT Network. International involvement. Topics such as carpentry, living poets, dengue fever, computers, cultural differences, etc. have been subjects for discussion. Most exchanges involved several persons at two or more stations in the network communicating about a common topic.												120,206 210,219 577,745 822	232 297	
Australia U.S.	NIH	ATS-1 ATS-3	Scientist to scientist conferences involving researchers in isolated field study sites.												U.F. 2-034		
U.S. and Pacific	Nat. Inst. of Allergy and Infect. Disease	ATS-1	Regularly scheduled voice communications between research scientists in disease control. Over 100 scientists in U.S. and Pacific area have participated.												530	295	
Alaska Northwest U.S.	HET/WAMI NIH/LRC	ATS-6 CTS	Two-way interactive multiplex audio and video satellite communications were used to interview Alaskan applicants to the UW medical school.												515,516 555,562 652,690 780,792	CTS-13	
Eastern U.S.	Westinghouse NASA/LRC	CTS	Full duplex video to allow individuals to meet face-to-face without the problem of travel. Terminals are in Baltimore, Maryland, and Lima, Ohio.												555,562 780,792 829	CTS-15	

COMMUNICATIONS (CONT'D)

LOCATION	AGENCY OR SPONSOR	SAT.	DESCRIPTION	TIME FRAME										UD ACC. NO.	EXP. NO.	
				69	70	71	72	73	74	75	76	77	78			79
			<u>CONFERENCE (CONT'D)</u>													
U.S.	NASA	CTS	Two-way video was used for teleconferencing between NASA Ames, Lewis Goddard, and Headquarters. Effects of atmospheric conditions on performance were studied, as were the use of encoders and decoders.												780,792	CTS-14
Canada U.S.	Public Service Commission of Canada	CTS	A series of seminars was held between Canadian and U.S. governmental officials. Studies were in Ottawa and Syracuse. Topics covered included inter-governmental relations, health care delivery, and international communications.												720	
Western Hemisphere	U.S. Navy	ATB-1	The purpose of this experiment is to determine the viability of a satellite communication network for use by the Naval Fleet Analysis Center. Voice link between California and Puerto Rico.												530	321
Eastern U.S.	George Washington Univ.	CTS	Demonstration of videoconferencing between congressperson, their staffs and their constituents. Application areas include hearings, constituent group meetings, and personal dialogue between congressperson and constituents.												780,792 839,851 879,945	CTS-25
U.S.	Asun. of American Med. Col. HEW	CTS	Experiment to determine if satellite will provide mechanism to mobilize selected experts on short notice to appraise materials submitted for inclusion in the NIM files.												516,840	CTS-7
U.S.	NIH/LIC National Institute on Drug Abuse	CTS	Use of two-way video to allow selected youth teams from different parts of the country to discuss common problems in drug abuse prevention programs.												516,840 848,849	CTS-7

COMMUNICATIONS (CONT'D)

LOCATION	AGENCY OR SPONSOR	SAT.	DESCRIPTION	TIME FRAME										UD ACC. NO.	EXP. NO.
				69	70	71	72	73	74	75	76	77	78		
			<u>CONFERENCE (CONT'D)</u>												
U.S.	NIH/LHC N.T. Wash- ington Foundation	CTS	Bethesda and L.A. were involved in a drug abuse conference. Presenters were from Howard V. and Kazi House. Two-way audio-video.											848,849	CTS-7
U.S.	NIH/LHC East-West Academy of Healing Arts	CTS	Presenters in Bethesda and Menlo Park interacted on Oriental and Indian healing methods. Participants were Fed. Health Agency Adm. and Uni- versity Faculty. Two-way audio- video for presenters, one-way for several hospitals in California.											848,849	CTS-7
U.S.	NIH/LHC Inst. For Pediatrics	CTS	Two three hour sessions and one six hour session on the family. Audience was health professionals in Alaska, Cal., Colo., and Wash., D.C. Two-way video and audio, some one-way video.											848,849	CTS-7
Alaska Northwest U.S.	HET/WAMI NIH/LHC	CTS	Interactive programs directed toward recruitment of minorities. Programs directed to students and parents.											555,562 780	CTS-11
Eastern U.S.	Satellite Business Systems	CTS	PROJECT ADJUNCT uses high-speed digital communications. Tele- conferences are set up for partici- pating companies using two-way video. Capability includes data processing, document dist., and electronic mail.											780	CTS-26
Western U.S.	VA	CTS	Individual and conference communi- cations between hospitals in net- work. Emphasis on two-way video transmission. Mobile units make production possible at any hospital in the network.											555,562 780	CTS-11
Western U.S.	PSSC Bur. of Reclamation	CTS	Demonstration of officials interested in the possibility of using sat. communication to coordinate their efforts throughout the country.											897	CTS-21

COMMUNICATIONS (CONT'D)

LOCATION	AGENCY OR SPONSOR	SAT.	DESCRIPTION	TIME FRAME												UD ACC. NO.	EXP. NO.
				69	70	71	72	73	74	75	76	77	78	79			
			<u>CONFERENCE (CONT'D)</u>														
U.S. Trust Territories	PSSC Dept. of Interior	ATS-1 ATS-6	The Dept. of Interior Sat Proj. (DISP) is a multi-disciplined educational program for the Trust Terr. 21 VHF radio terminals. ATS-6 is to be used for video conf. in late 1978.												897	338 639	
U.S.	NIH/LMC Sec. for Neurosciences	CTS	Info. dissemination and exchange at annual meeting. Anaheim and Bethesda were the two-way sites involved.												848,849	CTS-7	
Pacific	PSSC Dept. of Interior NASA	CTS	Demonstration in connection with inaugural celebrations of newly appointed Governor Salpan. Video taped address by Pres. Carter welcoming the Governor.												897	CTS-21	
U.S. Canada	Ontario Educ. Com. Auth. Project Interchange PSSC	CTS	OECA conducted a conference on using sat. comm. in education. Specifically the teaching of reading to primary students.												897	CTS-21	
Eastern U.S.	NIH/LMC Greater Cleveland Hosp. Assoc.	CTS	Information dissemination and exchange at annual meeting. Cleveland and Bethesda were two-way sites. SECA sites were one-way video with return audio by phone.												848,849 877,897	CTS-7 CTS-21	
California Maryland	Univ. of Calif. PSSC	CTS	A conference held in San Diego on off-shore oil drilling. Representative of DOI addressed conference via sat. from office in Bethesda.												897	CTS-21	
Washington, D.C., Calif. Washington	JCET PSSC	CTS	During the 1978 meeting of AAAS a conf. was held to discuss the potential of sat. com. for meeting educational needs. Full-duplex facilities were used. Another session involved the Forum for the adv. of students in Sc. & Tech. discussing the use of sat. as a tool of science.												897	CTS-21	

COMMUNICATIONS (CONT'D)

LOCATION	AGENCY OR SPONSOR	SAT.	DESCRIPTION	TIME FRAME										UD ACC. NO.	EXP. NO.	
				69	70	71	72	73	74	75	76	77	78			79
			<u>CONFERENCE (CONT'D)</u>													
Colorado West Indies	AID U. of W.I. PSSC	CTS	Demonstration to exchange info. on solar energy between staff of Solar Energy Res. Inst. in Colo. and educators on UWI campuses.												897	CTS-21
Indiana California	Indiana Higher Ed. Telecom System PSSC	CTS	A demonstration for IHETS aimed at assessing the potential of sat. com. in the field of professional cont. educ.												897	CTS-21
Maryland Colorado	NOAA PSSC	CTS	A demonstration on the use of sat. telecom in lieu of travel to conduct business. Two-way audio and video.												897	CTS-21
North Carolina Ontario, Can., Miss- issippi California	N.C.A. & T. Univ.	CTS	A demonstration involving industrial and univ. sites. Included in the network were N.C. ATU., Jackson, S.U., Stanford U. and Bell Northern Res. in Canada. Capability between sites varied from full duplex to one-way audio video with telephone talkback.												904	
Appalachia	AESP/ARC	ATS-3 ATS-6	AESP personnel conducted a tele-conference between site directors and advisory board members. One-way video with two-way audio.												937	673
Appalachia	AESP/ARC Frostburg State Col.	ATS-3 ATS-6	Four seminars on energy and fiscal conservation in educational institutions was conducted. 15 sites. One-way video and two-way audio.												937	673
Appalachia	AESP/ARC U. of Cincinnati	ATS-3 ATS-6	A seminar to provide information about U.C.'s non-residential degree program in health planning and adm. One-way video with two-way audio.												937	673

COMMUNICATIONS (CONT'D)

LOCATION	AGENCY OR SPONSOR	SAT.	DESCRIPTION	TIME FRAME												UD ACC. NO.	EXP. NO.
				69	70	71	72	73	74	75	76	77	78	79			
			<u>CONFERENCE (CONT'D)</u>														
Alabama	B. Alabama Educ. Oppor Center NASA/IERC PSSC	CTS	The demonstration was held to give high school and college students an opportunity to use sat. com. and obtain career information from NASA engrs & scientists.												■	897	CTS-21
Colorado Maryland	NIH/LMC U. of Colorado Med. Center PSSC	CTS	Full duplex video-audio was used to enable rural health planners in Bethesda and Denver to discuss biomedical communications.												■	952	CTS-21
Southern U.S.	Southern Baptist Conv. PSSC	CTS	SBC leaders in Fort Worth and Nashville were involved in a demonstration of teleconferencing. One-way video with two-way audio.												■	952	CTS-21
California Maryland	UNICON, Inc PSSC	CTS	Teleconference between science fiction writers, motion picture specialists, and attendees at UNICON 1978 annual meeting.												■	952	CTS-21
Minnesota	A.A. Of School Adm. PSSC	CTS	Demonstration of teleconferencing given for AASA Summer convention. DHEW secretary J. Califano gave an address to the convention via sat. Interactive capability also demonstrated.												■	952	CTS-21
Nebraska Virginia Wash., D.C.	Army Corps of Engineer PSSC	CTS	Teleconference involving 3 div. offices concerned with water control. Full duplex video and audio.												■	952	CTS-21
U.S.	Amer. Hospital Assoc. PSSC	CTS	Selected sessions at AHA convention were transmitted to adm. at approx. 250 hospitals. Demonstration involved both CTS and Westar I, 4 CTS transportable terminals, 10 receive-only terminals, and tie-in with 8 terrestrial networks.												■	952	CTS-21

COMMUNICATIONS (CONT'D)

LOCATION	AGENCY OR SPONSOR	SAT.	DESCRIPTION	TIME FRAME												UD ACC. NO.	EXP. NO.
				69	70	71	72	73	74	75	76	77	78	79			
			<u>CONFERENCE (CONT'D)</u>														
Maine New Hamp- shire Vermont	Med. Care Dev., Inc. PSSC	CTS	Demonstration to assess the potential of interconnecting hospital television networks for cont. educ. and resources sharing. Interactive through trans-portable terminals.												■	952	CTS-21
Western Hemisphere	United Nations NASA	CTS	During a U.N. conference on technical cooperation among developing countries held in Argentina, the speakers were transmitted to N.Y. translated into the five official U.N. languages and returned via CTS to the audio headsets.												■	879	
Eastern U.S.	PSSC Libr. Info. & Tech. Assoc.	CTS	Specialists and students of U. of Michigan and GSFC participated in a two-way discussion of management of information.												■	877	CTS-21
U.S.	National Womens Assn.	CTS	Offices of affiliated womens groups in six cities will use satellite for inter-organizational communications. Approved but not implemented.												■	780	CTS-27
Eastern U.S.	PSSC Station WMVS	CTS	Congressional rep in Wash. D.C. and local leaders in Milwaukee discussed economic issues. Program was broadcast over WMVS for public viewing.												■	877	CTS-21
Western U.S. Alaska	PSSC U.S. Cath. Conf.	CTS	Church officials conducting hearings on communications. PSSC used CTS to transmit one-way to remote sites. Testimony from Catholics at remote sites was thru land-lines.												■	877	CTS-21
U.S.	GTE Labs	CTS	Experiment to evaluate GTE designed terminals and use equipment in teleconferencing.												■	877	CTS-33
Eastern U.S.	PSSC N. Carolina	CTS	Full duplex video conference between legislatures in Raleigh and D.C. Discussion was about pending telecom. legislation.												■	877	CTS-21

COMMUNICATIONS (CONT'D)

LOCATION	AGENCY OR SPONSOR	SAT.	DESCRIPTION	TIME FRAME											UD ACC. NO.	EXP. NO.
				69	70	71	72	73	74	75	76	77	78	79		
			<u>LIBRARY SERVICES</u>													
Alaska	State of Alaska	ATS-1	Experiment to test feasibility of providing library services via satellite and determine demand for services for rural Alaska.												49,148	227
South Pacific	Univ. of Hawaii	ATS-1	Library services between Suva, New Zealand, New Guinea, and Hawaii. Two-way voice, facsimile and teletype have been used.												212,217 218	235
U.S.	Westinghouse HET/VA	ATS-6	The VIDAC (video, audio, compressed) system was used to transmit data in a library medical information delivery system between VA hospitals.												820	612
Rocky Mountains	Univ. of Denver HET	CTS	SALINET (Satellite Library Information Network) offers training program for librarians in small towns and supply library services in Rocky Mountain area. Still in planning.												555,562	CTS-9
			<u>SUPPORT</u>													
Pacific Line Islands	NCAR	ATS-1	Satellite was used to provide reliable communications during an experiment to obtain a comprehensive picture of the oceanic part of the equatorial trough zone. Data were correlated to photo from ATS-1.												100,177 193	
Western Hemisphere	EG&G	ATS-1	Satellite used to provide communications between two aircraft a series of flights to collect auroral data a conjugate geomagnetic points in opposite hemispheres.												1,20,21	232 281
Atlantic Barbados Island	Florida St. Univ. NCAR	ATS-1	Satellite was used to provide reliable communications between the various stations in an experiment to measure energy input into the atmosphere at the ocean surface.												191,865	

COMMUNICATIONS (CONT'D)

LOCATION	AGENCY OR SPONSOR	SAT.	DESCRIPTION	TIME FRAME											UD ACC. NO.	EXP. NO.
				69	70	71	72	73	74	75	76	77	78	79		
			<u>SUPPORT (CONT'D)</u>													
Pacific	NASA	ATS-1	ATS-1 was used as a voice communication link between ground control, Apollo 11, and recovery ships. Some fading was experienced.		■										1	202
Western Hemisphere	NASA Wallops Max Planck Institute	ATS-3	Voice communication from U.S. to stations in Peru, Chile, and Canada during Barium Ion Cloud Project.				■								530	230
Antarctica	Thalassa, Inc.	ATS-1 ATS-3	Voice communications and data transmission for the research ship Calypso during it's voyage to the Antarctic peninsula.				■								203	289
Pacific	EG&G	ATS-1	Provide voice communication for the fall rocket program of the Los Alamos Laboratory.				■								3	281
Bering Sea	U.S. USSR	ATS-1	Satellite was used by U.S. and U.S.S.R. scientists to coordinate an experiment dealing with atmospheric, sea and ice conditions in the Bering Sea.					■							4,202	290
Pacific Amchitka Island	Atomic Energy Commission	ATS-1	During later part of 1973 a ground station was established on Amchitka Island to be used on periodic revisits to the island. ATS-1 was used as the communication link. Project Zurita.					■							24	291
Ocean Wisconsin	NOAA	ATS-3	Voice and data transmission in support of the GATE project. Transmissions between research ships and ground station at University of Wisconsin.							■						301
Southern Ocean	Texas A&M Univ.	ATS-3	Voice communication support during International Southern Ocean Studies. This is a multi-ship operation.								■				530	306

COMMUNICATIONS (CONT'D)

LOCATION	AGENCY OR SPONSOR	SAT.	DESCRIPTION	TIME FRAME										UD ACC. NO.	EXP. NO.	
				69	70	71	72	73	74	75	76	77	78			79
			<u>SUPPORT (CONT'D)</u>													
Alaska	NASA/LRC	CTS	Ice flow data for the north slope of Alaska is gathered by aircraft equipped with side-looking radar and sent to NASA/LRC via GOES satellite. Data is annotated to show ice coverage and thickness and then transmitted via CTS to Barrow, Alaska.										■		748,780 792	CTB-22
Southern Ocean	Lamont-Doherty Geo. Obs.	ATS-3	Voice communication between ground station and ship ARA ISLAS ORCADAS conducting experiment in the Atlantic sector of the Southern Ocean.										■		See U.F. 2-015	317
Antarctica Canada	Stanford	ATS-3	Voice communication between stations at Siple Station, Antarctica, and Roberval, Canada. These conjugate stations are investigating whistler phenomenon.											■	530	324
Pacific Galapagos	Woods Hole Ocean Inst.	ATS-3	Voice communication between ground station and research ship KNORR conducting experiments in Galapagos area.											■	530	322
North Atlantic	Texas A&M	ATS-3	Voice and data communications between research vessel GYRE in North Atlantic and shore base in Texas.											■	530	309 325
Pacific	Univ. of California NSF Navy	ATS-1	Voice and data communication between research vessel in Pacific and ground station in California.										■		530	329
Montana	Montana Div. of Forestry	ATS-3	Use satellite for reliable voice and facsimile transmission between base camp and Fire Control Center during forest fire.											■	530	330
Atlantic	Texas A&M	ATS-3	Voice and data communication with research vessel CLIPPER during data collection voyage.											■	9,530	292

COMMUNICATIONS (CONT'D)

LOCATION	AGENCY OR SPONSOR	SAT.	DESCRIPTION	TIME FRAME												UD ACC. NO.	EXP. NO.
				69	70	71	72	73	74	75	76	77	78	79			
			<u>SUPPORT (CONT'D)</u>														
Pennsylvania	American Red Cross	CTS	The CTS was used by the Red Cross during the Johnstown, Pennsylvania flood. Officials used the communication link to coordinate their operation. Residents were also permitted to use it to talk to relatives.												1	736,879	CTS-6
North Atlantic Gulf Stream	Office of Nav. Res. NSF Univ. of Rhode Island	ATS-3	Voice and data communication between research vessel ENDEAVOR and Univ. of Rhode Island.													530	312
Enewetak	ERDA	ATS-1	Voice and data communication between Enewetak and Las Vegas, Nevada. Facsimile and voice privacy units to be used.													530	315 316
Atlantic Ocean	Univ. of Miami	ATS-3	Voice and data communications between University of Miami and oceanographic ships.													530	307
		ATS-6	GEOS altimeter data used in real-time measure of sea states is transmitted through ATS-6 to ground station.													530	
Peru	Adventures Unlimited	ATS-3	Voice communications between research groups working in the jungles of Peru.														342
U.S.	NASA/LERC	CTS	Simulated airport disaster. Airport in MD hooked-up with Burn Center in Texas. Two-way audio-video allowed paramedics to perform under direction of specialists.													879	
Antarctica	NSF	ATS-3	Voice communications to coordinate research operations between Siple and Palmer stations.														143

COMMUNICATIONS (CONT'D)

LOCATION	AGENCY OR SPONSOR	SAT.	DESCRIPTION	TIME FRAME											UD ACC. NO.	EXP. NO.
				69	70	71	72	73	74	75	76	77	78	79		
			<u>TERMINAL EVALUATION</u>													
Appalachia	AESP/ARC	ATS-3 ATS-6	Evaluation of equipment performance during the AESP experiment in Appalachia.												938	612
U.S.	NASA/GSFC	ATS-6	The Television Relay Using Small Terminals (TRUST) experiment demonstrated that high quality television can be received by low-cost, direct-receive ground stations.												596,766 597	618
U.S.	NASA/GSFC NHK (Japan)	CTS	During the Adv. Grd. Rec. Equip. Experiment (AGREE) thirteen sets of low-cost ground equipment were tested for satellite use. 2.5-m, 1.6-m, and 1.0-m antennas and associated receivers were tested.												780,792	CTS-21
Eastern U.S.	COMSAT	CTS	Experiment to show that a highly transportable, small earth station can quickly establish reliable communication in disaster situations. Communications between COMSAT and American Red Cross Headquarters in Washington, D.C.												555,736 780,792	CTS-6
Canada	Bell Canada Telesat/ Canada	CTS	Evaluation of the degree of portability of a 1-m antenna mobile station operating at 12 and 14 GHz. Erected, operated, and disassembled at four far north locations. Transmission quality was high.												707	
U.S.	NASA/GSFC	ATS-6	A portable L-band voice transceiver that fits in a briefcase was designed and built using commercially available parts.												985	
U.S.	NASA/AMES	CTS	Mobile analysis and Telecommunications Experiment (MATE) used an outfitted van for a mobile satellite terminal. Capability was demonstrated. Van destroyed by fire in 1978.													CTS-4a

COMMUNICATIONS (CONT'D)

LOCATION	AGENCY OR SPONSOR	SAT.	DESCRIPTION	TIME FRAME												UD ACC. NO.	EXP. NO.
				69	70	71	72	73	74	75	76	77	78	79			
			<u>TERMINAL EVALUATION (CONT'D)</u>														
U.S.	FCC	CTS	Terminal of Tomorrow (TOT) was an out growth of project AGREE. During the experiment five receive only terminals were tested for quality of T.V. reception. Accomplished the first satellite-to-home T.V. reception.												847	TS-30	
U.S.	GTE Labs	CTS	Evaluation of GTE designed earth terminals. Included were loopback tests and two-way conference with LERC personnel.												877	TS-33	

2.4 DATA TRANSMISSION

Many of the ATS user experiments involved the transmission of digital data. Experiments of this type are summarized in this section. Some of the experiments included in this section are also included in other sections. For instance, transmission of ECG's would occur in this section and the section on Health Services.

Most of the ATS user experiments dealt to some degree with the transmission of digital data. For instance, teletype and facsimile transmissions were used extensively in the Maritime experiments, while transmission of ECG, x-ray and heartbeat were demonstrated in the medical experiments. The ALOHA computer communications network demonstrated the feasibility of using satellite links to provide computer-to-computer and terminal-to-computer communication. Data transmission experiments are grouped into the following categories: buoy interrogation, computer, ECG, electrowriter, facsimile, information retrieval, materials distribution, noise characteristics, pulse code modulation, slow scan video, teletype, testing, video compression, and x-ray.

DATA TRANSMISSION

LOCATION	AGENCY OR SPONSOR	SAT.	DESCRIPTION	TIME FRAME												UD ACC. NO.	EXP. NO.
				69	70	71	72	73	74	75	76	77	78	79			
			<u>BUOY INTERROGATION</u>														
U.S.	NASA/GSFC ESSA	ATS-1	The VHF transponder on ATS-1 was used to interrogate four hydrologic platforms in Maryland, Arkansas, California, and Oregon. System performed satisfactorily.	■												240	
Bermuda	General Electric NASA/GSFC ONR/NAVY	ATS-3	Data transmission from a Sea Robin buoy was accomplished by the use of a transmitter-receiver-responder used for VHF ranging. On command data was transmitted from the buoy to a ground station. Two data rates were tested: 2441 bps and 305 bps.	■												23,860 220	
North Pacific	General Dynamics USCG	ATS-1	Interrogation of data from unmanned buoy by ground station at Mojave, California. System performed adequately but reliability was less than desired for an operational system.	■												251 239	
Norway	Norway	ATS-3	Interrogation of unmanned ocean buoy (SCOMB-1) located outside Bergen by ground station at Oslo.			■										28,29 233	
U.S.	Sierra Research Corp.	ATS-3	Weather radar data was transmitted from remote unmanned radar installations to data center for analysis. Hurricane surveillance.					■								6,7,530 207	
Antarctica	Desert Research Inst.	ATS-1 ATS-3	Transmission of weather radar output from Palmer Station, Antarctica to data center in Nevada.										■			530 310	
			<u>COMPUTER</u>														
Pacific	Univ. of Hawaii Univ. of Alaska	ATS-1	Experiment in advanced methods of random access communications with large computers. Computing facilities at Univ. of Hawaii and Univ. of Alaska were connected to computer at Ames Research Center computer via ATS-1 link to form ALOHA network. Wellington, New Zealand joined 1973.					■	■	■	■	■	■	■		50,210 225,227 220 305	

DATA TRANSMISSION (CONT'D)

LOCATION	AGENCY OR SPONSOR	SAT.	DESCRIPTION	TIME FRAME												UD ACC. NO.	EXP. NO.
				69	70	71	72	73	74	75	76	77	78	79			
Alaska	Univ. of Washington Med. School	ATS-1	<u>ECG</u> ECG's sent from Alaskan bush to University of Washington using a one-lead Parameter Cardiac Screener. During Jun.-Aug. 1972, ten transmissions were good quality, 3 were marginal, and 7 were unacceptable.													40,271	227
South Pacific	PEACESAT NIH	ATS-1	ECG's were transmitted from Hawaii to New Zealand using the Xerox TC 400 telecopier. Real-time transmissions using a twelve lead ECG were also made.													66	235
Southern U.S.	Southern Reg. Med. Consortium	ATS-3	Transmission of ECG signals from ambulance into the emergency room of a hospital.													530	
Canada	Canada	CTS	ECG's and heart beats were transmitted between two Canadian hospitals as part of a telecommunications experiment.													710,711	
Western U.S.	Univ of Wisconsin	ATS-1	<u>ELECTROWRITER</u> The Victor Electrowriter Remote Blackboard (VERB) was tested over the ATS-1 link between Univ. of Wisconsin and Stanford for possible use in Alaska. VERB can be used to transmit written or drawn messages. Acceptable transmission.													40	
U.S.	ESSA GSFC	ATS-1 ATS-3	<u>FACSIMILE</u> Dissemination of meteorological data from a central station to a large network of existing APT stations. Over 11,000 WEFAX weather chart and 10,000 satellite picture receptions were evaluated. Ninety-five percent of the receptions were usable.													130,192	103

DATA TRANSMISSION (CONT'D)

LOCATION	AGENCY OR SPONSOR	SAT.	DESCRIPTION	TIME FRAME											UD ACC. NO.	EXP. NO.
				69	70	71	72	73	74	75	76	77	78	79		
			<u>FACSIMILE (CONT'D)</u>													
Atlantic & Pacific	USCG MARAD Gen. Elec. Westinghouse	ATS-1 ATS-3 ATS-6	A large number of facsimile transmissions were made during maritime experiments. See Maritime Communication, Section 2.7.													
South Pacific	PEACESAT	ATS-1	Libraries at University of Hawaii and University of South Pacific use ATS-1 to transmit book orders using a xerox telecopier.												212,217 210	235
Western U.S.	Univ. of Wisconsin	ATS-1	Three types of facsimile machines were tested over the ATS-1 link between Univ. of Wisconsin and Stanford. A Xerox 400 Telecopier, a Litcom Colorfax photocopier and a Scanatron M4-2 Copier.												40	
U.S.	California Crime Tech. Research Foundation	ATS-1	Project SEARCH experiment was performed to evaluate effectiveness of satellite communication to transmit fingerprints from California to FBI files in East. Facsimile and video were used.												14,172 280	258
Eastern U.S.	COMSAT	CTS	A facsimile graphics channel is included as part of the communications link in the small earth terminal demonstration. The demo explores the use of satellite communication in disaster relief.												736,780	CTS-6
Alaska	NASA/LERC	CTS	Ice flow data gathered by a C-130 with side-looking radar is transmitted via GOES sat. to NASA/LERC. Data is annotated to show ice coverage and facsimile transmitted via CTS to Barrow, Alaska.												740,780 879	CTS-22

DATA TRANSMISSION (CONT'D)

LOCATION	AGENCY OR SPONSOR	SAT.	DESCRIPTION	TIME FRAME										UD ACC. NO.	EXP. NO.	
				69	70	71	72	73	74	75	76	77	78			79
			<u>INFORMATION RETRIEVAL</u>													
Western U.S. Alaska	Stanford UW UA NIH	ATS-1 CTS	As part of MEDLINE information retrieval system check out data from Stanford's medical library was transmitted via satellite using teletype. Demonstration was judged successful.												276,275 276,780 792,640	CTS-7
Appalachia	HET/ARC	ATS-6	Voice, teletype and facsimile used to obtain reference materials in Appalachia project.												754	612
Alaska	IHS/IHC	ATS-1	Patient records in Tanana Service Unit are stored in computer in Tucson, Arizona. Records were obtained via ATS-1 using a teletype terminal.												508,511 572,573 579,690	300
Eastern U.S.	George Washington Univ.	CTS	The use of information retrieval techniques via satellite is part of a teleconferencing demonstration for congress persons and their staff.												780	CTS-25
			<u>MATERIALS DISTRIBUTION</u>													
Western U.S.	HET/ Federation of Rocky Mtn. Sta.	ATS-6	Materials distribution service consisted of transmitting films and video tapes. A total of 162 hours were used.												812	612
Southern U.S.	Southern Educ. Commun. Assn.	CTS	Experiment to distribute education programs to member stations. Program material was oriented for use in elementary and secondary schools.												555,562 780,792	CTS-19
			<u>NOISE CHARACTERISTICS</u>													
Western Hemisphere	Westinghouse	ATS-1 ATS-1	Communication experiment to determine magnitude and spectral characteristics of noise in a SSB-FDMA/PRM multiple access system. Ground stations in North Carolina, California, and Australia.												1	

DATA TRANSMISSION (CONT'D)

LOCATION	AGENCY OR SPONSOR	SAT.	DESCRIPTION	TIME FRAME												UD ACC. NO.	EXP. NO.
				69	70	71	72	73	74	75	76	77	78	79			
			<u>PULSE CODE MODULATION</u>														
Japan	Radio Research Labs	ATS-1	Pulse Code Modulation (PCM) tests were conducted by Japanese from ground station at Kashima.													200	
			<u>SATELLITE-TO-SATELLITE</u>														
U.S.	NASA/GSFC	ATS-6	The first radio tracking of one satellite by another (4/16/75) Data was relayed between ATS-6 and low-orbit satellites GEOS-1 and Nimbus-6.													766,865 911	617 620
U.S.	NASA/GSFC	ATS-6	The Interferometer High-Speed Data Rate Acquisition System (IHDRAS) used ATS-6 to control low orbit satellites such as GEOS-1.													766,864	607
			<u>SLOW SCAN VIDEO</u>														
Western U.S.	Univ. of Wisconsin	ATS-1	Tests to evaluate use of slow-scan TV via narrow-band, voice channels. A unit built by Westinghouse was used. Several improvements were made in the ATS-1 link but transmissions still proved inadequate.													40	
Atlantic	Exxon Gen. Elec.	ATS-1 ATS-3	Slow-scan video transmitted from Exxon offices in New York City to tanker ESSO Bahamas in the Atlantic. Results were good.													15	
Western U.S.	General Electric Drug Enforce. Admin.	ATS-3	As part of a mobile search and rescue demonstration slow-scan video was transmitted to and from the mobile unit. Transmission was described as successful.													631,767	310

DATA TRANSMISSION (CONT'D)

LOCATION	AGENCY OR SPONSOR	SAT.	DESCRIPTION	TIME FRAME											UD ACC. NO.	EXP. NO.
				69	70	71	72	73	74	75	76	77	78	79		
Atlantic & Pacific	USCG MARAD GE Westinghouse	ATS-1 ATS-3 ATS-6	<u>TELETYPE</u> A large number of teletype transmissions were made during maritime experiments. See Maritime Communication, Section 2.7. Also see Information Retrieval in this section.													
Alaska	UW IIA Stanford NIH	ATS-1	Teletype was used as part of the MEFLINE information retrieval system to obtain computerized records of patients in Alaska.												270,275 276	
Western U.S.	Univ. of Washington NIH	ATS-1	Evaluation of direct carrier shift techniques for digital data transmission. Tests were run with satellite in full and half power modes. Improved channel quality was obtained. Error free copy was obtained at 2400 baud using half power mode.												274	282
Appalachia	AESP/ARC	ATS-3 ATS-6	Interactive workshops conducted by AESP used teletype as one means of submitting questions from remote sites to studio.												338	612 673
Alaska	IHS/IJIC HET	ATS-1 ATS-6	Patient records obtained from computer in Tucson, Arizona using teletype.												508,511 572,573 579,690	612
Eastern U.S.	COMSAT	CTS	Experiment to demonstrate that a small earth terminal can be set up in less than an hour for use in disaster areas. Part of the capability is a high-speed teletype line.												736,780	CTS-6

DATA TRANSMISSION (CONT'D)

LOCATION	AGENCY OR SPONSOR	SAT.	DESCRIPTION	TIME FRAME											UD ACC. NO.	EXP. NO.
				69	70	71	72	73	74	75	76	77	78	79		
			<u>TESTING</u>													
New Mexico	Stanford	ATS-3	As part of a CAI experiment between American Indian Pueblo in New Mexico and Stanford Univ., response to multiple choice questions was made through keyboard.												28,45601	
U.S.	HET/VA	ATS-6	CAI program in clinical decision making for nurses used keyboard for responding to multiple choice questioning.												576,675	612
U.S.	HET/VA	ATS-6	Patient responded to psychiatric-social questions through a keyboard.												576	612
Western U.S.	Fed. of Rocky Mtn. Sts. HET	ATS-3 ATS-6	Field tests of a data collection system for testing students in remote sites and obtaining a rapid summary of responses. Students responded to multiple choice questions by keying their answers on a specially designed keyboard.												634	612
			<u>VIDEO COMPRESSION</u>													
U.S.	HET/VA	ATS-6	VIDAC, a Westinghouse system for video compression, was tested at VA Hospital in Dublin. Ratio of real to compressed time is about 240:1.												576,820	612
Western U.S. & Canada	Stanford	ATS-6 CTS	Video compression technique was to be tested as part of satellite transmission of engineering courses between Stanford and Carleton Universities.												555,744780	CTS-4
U.S.	U.S. Army	ATS-6	Use burst transmission and video compression to distribute training materials to reserve and active units.												564	

DATA TRANSMISSION (CONT'D)

LOCATION	AGENCY OR SPONSOR	SAT.	DESCRIPTION:	TIME FRAME											UD ACC. NO.	EXP. NO.
				69	70	71	72	73	74	75	76	77	78	79		
Eastern U.S.	LRC/COMSAT	CTS	<u>VIDEO COMPRESSION (CONT'D)</u>												780,790 792	CTS-24
			DICE (Digitally Implemented Communications Experiment). Demonstration of the use of digital implementation in video transmission. Picture quality is rated using as a function of link parameters. Hope to show practicality of digitally compressed video systems.													
			<u>X-RAY</u>													
			Transmission of x-ray from one ground station to another via satellite. Transmission was of good quality and could be used for analysis.													
Eastern U.S.	Duke Medical School	ATS-1	Transmission of x-ray from one ground station to another via satellite. Transmission was of good quality and could be used for analysis.												16,55 298	102
South Pacific	PEACESAT NIH	ATS-1	Transmission of x-rays using small, inexpensive ground terminals. Several methods of transmission were tried including Polaroid prints, wire photo-equipment and positive photographs.												66	235
Canada	Canada	CTS	X-rays were transmitted between two Canadian hospitals as part of telecommunication experiment.												716,711	

2.5 EDUCATION

Education programs comprise a large portion of the total ATS user experiment. Major education demonstrations were conducted by the PEACESAT network, the State of Alaska, WAMI, the Federation of Rocky Mountain States, and the Appalachian Regional Commission. All but the PEACESAT network are part of the HET program funded by DHEW.

Included in this section are demonstrations that were classified as education. The demonstrations are grouped, according to the intended audience, into the following categories: adult, college, CAI, government, library, materials distribution, medical, miscellaneous, primary, and teacher.

EDUCATION

LOCATION	AGENCY OR SPONSOR	SAT.	DESCRIPTION	TIME FRAME												UD ACC. NO.	EXP. NO.
				69	70	71	72	73	74	75	76	77	78	79			
			<u>ADULT</u>														
Alaska	State of Alaska	ATS-1	During this period a wide range of two-way voice experiments aimed at audiences in rural Alaska were conducted.												34	227	
Rocky Mountains	HET/ Rocky Mt. States	ATS-6	A series of ten programs called "Footprints" directed at adult rural population. One-way video and two-way audio. Topics: strip mining, agri-business, etc.												567,573 621,627 690,725 764	612	
Alaska	HET/ Alaska	ATS-6	"Alaska Native Magazine" was a series of 12 programs for adults. Broadcast once a week in two languages. Interactive.												539 567,573 623,688 689,690	612	
Puerto Rico Virgin Islands	Project Look-Up Inc.	ATS-6	Broadcast health, educ. and cultural and moral programs to rural populations. Exploring use of TV to bring higher standard of living. Programs accompanied by work packets. No interactive capability.												764	331 660	
Canada	Univ. of Newfoundland	CTS	Health education to adult community. One-way video and two-way audio.												710		
Appalachia	AESP/ARC	ATS-3 ATS-6	AESP personnel planned and delivered six workshops. Specific topics were: education of the gifted student; resources and needs in Appalachia's social service delivery in rural areas; home energy conservation; child abuse; parent effectiveness. Videotape, one-way video with talk-back, and printed materials were used.												934,936	673	
Montana	Montana S.U.	ATS-6	The Televised Education Applied to Montana (TEAM) experiment plans to deliver educational programs and conduct two-way video conferences throughout the state. Still in planning phase.												See U.F. 2-008	670	

EDUCATION (CONT'D)

LOCATION	AGENCY OR SPONSOR	SAT.	DESCRIPTION	TIME FRAME												UD ACC. NO.	EXP. NO.
				69	70	71	72	73	74	75	76	77	78	79			
			<u>ADULT (CONT'D)</u>														
West Indies	Univ. of the West Indies	ATS-3 ATS-6	Broadcast educational programs to citizens in West Indies. One-way video and two-way audio.													333 663	
Appalachia	AESP/ARC	ATS-3 ATS-6	A workshop designed to interest retirees in becoming involved in the arts. One-way video with talkback.												937	673	
			<u>COLLEGE</u>														
Hawaii	Univ. of Hawaii	ATS-1	Students in speech class at Univ. of Hawaii experienced the problem of communicating with students via two-way voice link.												12 577	235	
California	UCIA	ATS-3	VHF signals from ATS-3 were monitored to show students in plasma physics lab how the phase of the signal is related to fluctuations in the ionosphere.												None	283	
South Pacific	PEACESAT/ USP	ATS-1	Physics lectures from University of Hawaii transmitted to 60 students at USP. Two-way voice communications made questions and answer period possible.												206	235	
South Pacific	University of Hawaii	ATS-1	Courses in the history of American education from University of Hawaii to students at USP. Faculty played supportive role with emphasis on student interaction. Two-way voice only.												577	235	
California Brazil	Stanford	ATS-3	Transmission of lectures from Stanford to Brazil. Two-way computer links and teletype are to be used. Status of experiment is not clear.												25,151	236	

EDUCATION (CONT'D)

LOCATION	AGENCY OR SPONSOR	SAT.	DESCRIPTION	TIME FRAME												UD ACC. NO.	EXP. NO.
				69	70	71	72	73	74	75	76	77	78	79			
			<u>COLLEGE (CONT'D)</u>														
South Pacific	USP	ATS-1	An experimental program of the Univ. of the South Pacific permitting students at remote terminals to get tutorial help for correspondence courses. Two-way voice communication available. Correspondence students in Tonga talk to tutors in Suva.												311,749 912	235 297	
Alaska	WAMI NIH/LHC	ATS-6 CTS	Beginning science course for first-year medical students away from University of Washington campus. Two-way video.												511,515 527,652 690,746 565,562 780	CTS-13	
California Ottawa	Stanford	CTS	Engineering classes and seminars at Stanford and Carleton University exchanged via satellite. One-way video with two-way audio was used for classes. Two-way video and audio for seminars. A video compression technique is being tested.												555,744 780,792	CTS-4	
U.S.	Varian Assoc., Inc.	CTS	Interactive teleconferencing used for graduate level courses. Attempt made to determine minimum acceptable program quality.												780	CTS-29	
			<u>COMPUTER AIDED</u>														
New Mexico	Stanford	ATS-3	CAI was provided to American Indian Pueblo in New Mexico by Stanford. Display on video screen with response to questions through key-board. Grading and correct answers also displayed on screen.												28,45 601	285	
U.S.	HET/VA	ATS-6	CAI program in clinical decision making for nurses. Used V.A. Hospitals at Fayetteville and Altoona. Response through key-board.												567,675	612	

EDUCATION (CONT'D)

LOCATION	AGENCY OR SPONSOR	SAT.	DESCRIPTION	TIME FRAME											UD ACC. NO.	EXP. NO.
				69	70	71	72	73	74	75	76	77	78	79		
			<u>GOVERNMENT</u>													
South Pacific	USP	ATS-1	A series of seminars on community and government services and activities. Two-way voice communication available. Participants are from various South Pacific Islands.												311,749	235 297
Canada	Public Service Comm. of Canada	CTS	Two-way video between Ottawa and four remote sites used to conduct course in long range planning for government and university employees. A resource person was used instead of a teacher.												728,730	
Alaska Northwest U.S.	WAMI	CTS	Two-way satellite communications used to provide state legislators with information on regional health care needs.												780,792 839	CTS-11
			<u>LIBRARY</u>													
Alaska	HET/Alaska	ATS-6	Correspondence course prepared by Loyola U. for community librarians. Interaction between students and studio teacher.												567,623 688,689 690	612
Rocky Mountains	HET/Univ. of Denver	CTS	SALINET (Satellite Library Information Network) offers video training program for librarians in small towns. Eventually use video programming to inform individuals of library resources. Still in planning.												562,747 792	CTS-9
			<u>MATERIALS DISTRIBUTION</u>													
Western U.S.	HET/Federation of Rocky Mtn. Sts.	ATS-6	Materials distribution service consisted of transmitting films and video tapes. A total of 162 hours were used.												812	612

EDUCATION (CONT'D)

LOCATION	AGENCY OR SPONSOR	SAT.	DESCRIPTION	TIME FRAME												UD ACC. NO.	EXP. NO.
				69	70	71	72	73	74	75	76	77	78	79			
			<u>MATERIALS DISTRIBUTION (CONT'D)</u>														
Southern U.S.	Southern Education Commun. Assn.	CTS	Experiment to distribute educational programs to member stations. Program material was oriented for use in elementary and secondary schools.													555,562 780,792	CTS-19
			<u>MEDICAL</u>														
Pacific	Univ. of Hawaii Samoa	ATS-1	Course on nurse-patient interaction for nurses in Pacific area. Two-way voice communication.													745	235 320
Alaska	NIH/LHC	ATS-1	Two-way voice communication used in presentation of coronary care course for village health aides in Alaska.													52	300
U.S.	HET/VA	ATS-6 CTS	Use telecommunication to provide patients and their families with information needed for home care or rehabilitation. Three clinics were conducted.													576,625 690,780 792	612 CTS-11
U.S.	HET/VA	ATS-6 CTS	Two-way video seminars on health related topics for doctors and nurses in V.A. Hospitals. First half of program was a pretaped presentation. Second half of program consisted of interactive discussion of topic.													567,573 576,625 690,780 792	612 CTS-11
Alaska	HET/WAMI NIH/LHC	ATS-6	WAMI students were sent to rural areas during the clinical phase of the medical education. Students maintain contact with med. school via ATS-6. Case presentations and evaluations were made using a video link.													511,515 527,572 573,690 932	612
Alaska Northwest U.S.	HET/WAMI U. of Wash. School of Medicine	ATS-6 CTS	Beginning science course for first year medical students away from Univ. of Washington campus. Two-way video. Lectures taped and sent to students prior to satellite class. Satellite time devoted to discussion of material.													511,515 527,652 690,746 555,562 780,792 840,840 932	612 CTS-11

EDUCATION (CONT'D)

LOCATION	AGENCY OR SPONSOR	SAT.	DESCRIPTION	TIME FRAME												UD ACC. NO.	EXP. NO.
				69	70	71	72	73	74	75	76	77	78	79			
			<u>MEDICAL (CONT'D)</u>														
U.S.	HET/VA	ATS-6	CAI program in clinical decision making was shown to nurses in V.A. Hospitals at Fayetteville and Altoona. Response through keyboard.													576,675 915	612
Rocky Mts.	Mtn. St. Health Corp. (MSHC)	ATS-6	The dissemination of refresher training materials to emergency med. technicians in Montana.													922	621
U.S.	U. of Wash. School of Nursing NIH/LHC	CTS	NCAST (Nursing Child Ass. Sat. Train) a series of classes to disseminate information on child care to nurses at diverse sites. Both two-way color TV and one-way TV with telephone feedback were used.													516,783 792,840 848,849 932	CTS-7
Canada	Univ. of Newfoundland	CTS	Interactive video from University Hospital to remote terminals. Audio-visual to remote with audio only from remote. Continuing medical education provided for doctors and nurses. Also, health education provided for community. For instance, prenatal and infant nutrition for mothers.													710	
U.S.	NIH/LHC American Dietetic Assn.	CTS	Continuing education for dietitians to discuss the "Patient Nutrition Handbook" and financial planning for food service systems. Two-way video between Denver, Seattle and Bethesda. Programs involving VA hospitals were one-way video, two-way audio.													516,792 840,848 849,932	CTS-7
Alaska Northwest U.S.	HET/WAMI U. of Wash. School of Medicine	CTS	Delivery of medical education to physicians and others practicing in isolated areas who need to keep current on medical advancements. Satellite provides interactive reinforcement.													555,562 780,792 840,848 849,932	CTS-1

EDUCATION (CONT'D)

LOCATION	AGENCY OR SPONSOR	SAT.	DESCRIPTION	TIME FRAME											UD ACC. NO.	EXP. NO.
				69	70	71	72	73	74	75	76	77	78	79		
			<u>MEDICAL (CONT'D)</u>													
U.S.	NIH/LHC U. of Ken- tucky, Maryland, Colorado, Wash. & Florida	CTS	Use of two-way video telecommunication for dental education. Dentists in Bethesda, Seattle & Denver interacted with dental school faculty on office design, accounting, and practice analysis.												516,792 848,848 849,932	CTS-7
U.S.	NIH/LHC U. of Wash. Colorado, South Carolina	CTS	Project Reach used two-way video telecommunications to disseminate information on various medical topics to professionals in Fairbanks & Denver. Receive only with telephone call-back was used in 29 cities in SECA network.												848,849 932	CTS-7
U.S.	NIH/LHC Inst. for Pediatrics	CTS	Continuing educ. for doctors and interns on pediatrics. Audience included Alaska, California & Washington, D.C. Some sites were two-way video and audio, others one-way video.												848,849	CTS-7
Eastern U.S.	NIH/LHC B.T. Washington Foundation	CTS	Ten two-hour allied health conferences were held between Tuskegie Inst. and G. Washington U. Programs dealt with physical therapy. Two-way audio-video.												848,849	CTS-7
Western U.S.	VA	CTS	VA National Medical Journal, a weekly program for physicians, dentists and nurses is broadcast to all hospitals in the network. Program discusses professional developments taking place throughout the country.												780	CTS-11
Southeast U.S.	PSSC U. of S. Carolina	CTS	A series of cont. med. education programs. The interactive seminar linked 150 Univ. and Hosp. in the S.E. and Ohio. Health care specialist could obtain AMA c.e. credits.												897	

EDUCATION (CONT'D)

LOCATION	AGENCY OR SPONSOR	SAT.	DESCRIPTION	TIME FRAME												UD ACC. NO.	EXP. NO.
				69	70	71	72	73	74	75	76	77	78	79			
			<u>MEDICAL (CONT'D)</u>														
Southern U.S.	PSSC U. of Alabama	CTS	Cont. med. education in cardiology for physicians and restorative materials for dentists. One-way video with telephone return.												897		
Barbados	Dept. of State, AID	ATS-3	Transmit information from U.S. Red Cross to Red Cross in Barbados on latest techniques of CPR.													344	
			<u>MISCELLANEOUS</u>														
South Pacific	Univ. of Auckland	ATS-1	A series of six lectures on law and the sea. Two-way voice capability permitted dialogue between professor and participants.												577	235	
Appalachia	HET/ARC	ATS-3 ATS-5	Information retrieval system available to teachers enrolled in elementary reading and career education courses. Voice, teletype, and facsimile available.												754, 577	286 612	
U.S.	American Lutheran Church	ATS-1	Experiment to evaluate practicality of using satellite communication at various levels within the church. Prime area of concentration is continuing education. Voice mode only.												530	312	
U.S.	NIH/IDC/VA American Dietetic Assn.	CTS	Two-way video used to conduct continuing education workshops for dietitians. Topics included: patient nutrition, financial planning for food service systems, and assertiveness training.												516, 848 849	CTS-7	
U.S. Trust Territories	PSSC, Dept. of Interior	ATS-1 ATS-6	The Dept. of Interior Sat. Project (DISP) is a multi-disciplined educational program for the Trust Territories. Includes 21 VHF radio terminals. ATS-6 is to be used for video late in 1978.												897	338	

EDUCATION (CONT'D)

LOCATION	AGENCY OR SPONSOR	SAT.	DESCRIPTION	TIME FRAME											UG ACC. NO.	EXP. NO.
				69	70	71	72	73	74	75	76	77	78	79		
			<u>PRIMARY</u>													
New Mexico	Stanford	ATS-1	Computer Aided Instruction (CAI) was provided to American Indian Pueblo by Stanford. Display on video screen with response to questions through a keyboard. Grading and correct answers also displayed on screen.												28,45601	
Alaska	State of Alaska	ATS-1	Two-way voice communication between elementary school children in Alaska and Hawaii and Alaska and California.												49	227
Alaska	HET/Alaska	ATS-6	Program called "Right On" was a health course directed at 8-10 year olds. Receive video and transmit audio.												539 567,573 623,688 689,690	612
Alaska	HET/Alaska	ATS-6	Basic Oral Language Development (BOLD) directed at 5-7 year olds to increase proficiency in spoken English. One-way video and two-way audio. Interaction used for drill.												539 567,573 623,688 689,690	
Rocky Mountains	HET/Rocky Mtn. Sts.	ATS-6	Course in career education called "Time Out" offered to junior high school students. Daily broadcast. One-way video and two-way audio.												567,573 621,627 690,725 943	612
			<u>TEACHER</u>													
Hawaii	State of Hawaii	ATS-1	Two-way voice communication used by State Department of Education to plan science instruction in secondary schools.												12	235
Alaska	NEA	ATS-1	Seminar on teaching techniques using two-way voice communication between teachers throughout Alaska.												49	227
Alaska	NEA	ATS-1	An hour long discussion/news series once a month dealing with crucial issues facing education and the NEA. Two-way voice communications. Prog. directed to education leaders in larger cities.												286,751	227

EDUCATION (CONT'D)

LOCATION	AGENCY OR SPONSOR	SAT.	DESCRIPTION	TIME FRAME											UD ACC. NO.	EXP. NO.
				69	70	71	72	73	74	75	76	77	78	79		
			<u>TEACHER (CONT'D)</u>													
Alaska	NEA	ATS-1	Three credit course designed by NEA for teachers in small villages. Two-way voice communication.												286,751	227
South Pacific	University of South Pacific	ATS-1	A conferencing network to implement a secondary school curriculum project. Two-way voice communication available.												311,749	235
Alaska	HET/Alaska	ATS-6	Course called "Tell and Show" for teachers on motivating students. Responded to specific educational needs of teachers in remote areas. One-way video and two-way audio.												567,623 688,689 690,832	612
Appalachia	HET/ARC	ATS-3 ATS-6 CTS	Basic reading instruction for teachers. Some sites has two-way video, others were receive only. Receive only sites connected by telephone to sites that could broadcast. Students could respond to multiple choice questions through special keyboard. Career education for secondary school teachers were offered using same format.												567,573 622,690 723,754 770,814 817,819 871,933	246 612 673
Rocky Mountains	HET/Rocky Mnt. Sta.	ATS-6	Course "Careers in the Classroom" for teachers. Lecture/discussion format. College credit option. One-way video and two-way audio.												567,573 621,690 725,943	612
Alaska South Pacific	NEA	ATS-1	Bi-weekly program to provide open forum for prof. growth. Two-way voice between teachers in Alaska, Hawaii, and South Pacific.												286,751	227
Pacific and U.S.	NEA	ATS-1 ATS-3	Three interactive voice only programs with the theme "Education for a Global Community" were offered at monthly intervals to teachers in Alaska, Hawaii, Fiji, New Zealand, and Washington, D.C. Double-hopping through ATS-1 and ATS-3 is used to connect Eastern U.S. with South Pacific.												286,751	227

EDUCATION (CONT'D)

LOCATION	AGENCY OR SPONSOR	SAT.	DESCRIPTION	TIME FRAME												UD ACC. NO.	EXP. NO.
				69	70	71	72	73	74	75	76	77	78	79			
			<u>TEACHER (CONT'D)</u>														
India	Gov. of India Center for Education Technology	ATS-6	Program for primary teachers on how to teach science using a multi-media approach. Part of SITE experiment.												931	647	
Alaska Appalachia	NEA	ATS-1 ATS-3	Audio interaction between 6 Appalachian sites and 4 Alaskan sites. Used in conjunction with ATS-6 teleconferencing.													302	
California	Arch. of San Francisco	CTS	Programs from Archdiocese of San Francisco Education Television Center to teachers in the area. Teachers are able to exchange information via telephone hookup.												555,562 700,700 792	CTS-16	
Appalachia	AESP/ARC	ATS-6	A course called "Visual Learning" taken by 55 teachers at 10 sites. How to make more practical use of TV in classroom. One hour graduate credit.												770,814 823	673	
Appalachia	AESP/ARC	ATS-3 ATS-6	AESP personnel planned and delivered six workshops. Specific topics were: education of the gifted student; resources and needs in Appalachia's social service delivery in rural areas; home energy conservation; child abuse; parent effectiveness. Videotape, one-way video with talkback, and printed materials were used.												934,936	673	
Appalachia	AESP/ARC	ATS-3 ATS-6	A course for elementary teachers on methods of dealing with handicapped children in the regular classroom. Video tapes, one-way video with talkback, in-class activity.												935	673	
Appalachia	AESP/ARC	ATS-3 ATS-6	Workshops on various topics were presented, namely, developing a positive self-image, dealing with defiance and new copyright laws. One-way video with talkback.												937	673	

2.6 HEALTH SERVICES

A large number of ATS/CTS demonstrations were directed at improving health care delivery in remote regions such as Alaska, Appalachia, and the South Pacific. Health care demonstrations began in Alaska in 1972 with doctors at Tanana advising health aides in remote areas of Alaska on treatment of patients. Two-way voice channels on ATS-1 was the mode of communications for these early demonstrations. Beginning in 1974 consultations using two-way video links via ATS-6 were implemented.

Major contributors to the health care demonstration were the State of Alaska, the Indian Health Service, WAMI, the Veterans Administration, and Canada. Most of the demonstrations within the United States were funded by the Department of Health, Education and Welfare.

The ATS/CTS health care demonstrations from 1972 to present are summarized in this section. For convenience, the demonstrations are separated into the categories: Conference, consultation, data transmission, education, records, and testing.

HEALTH SERVICES

LOCATION	AGENCY OR SPONSOR	SAT.	DESCRIPTION	TIME FRAME											UD ACC. NO.	EXP. NO.
				69	70	71	72	73	74	75	76	77	78	79		
			<u>CONFERENCE</u>													
Pacific	Univ. of Hawaii PEACESAT Network	ATS-1	Many exchanges have been held on various medical topics over the PEACESAT network. Exchanges were two-way voice and usually involving several network members. Topics are too numerous to mention.												120,206 219,745	235
U.S. and Pacific	Nat. Inst. of Allergy and Infect. Disease	ATS-1	Regularly scheduled voice communications between research scientists in disease control. Over 100 scientists in U.S. and Pacific area have participated.												530	295
Alaska Northwest U.S.	HET/WAMI NIH/LHC	ATS-6 CTS	Two-way interactive multiplex audio and video satellite communications were used to interview Alaskan applicants to the UW medical school.												515,516 555,562 652,690 780,792	612 CTS-13
Canada U.S.	Public Service Commission of Canada	CTS	A series of seminars was held between Canadian and U.S. governmental officials. Studies were in Ottawa and Syracuse. Topics covered included inter-governmental relations, health care delivery, and international communications.												728	
U.S.	Assn. of American Med. Col. HEW	CTS	Experiment to determine if satellite will provide mechanism to mobilize selected experts on short notice to appraise materials submitted for inclusion in the NIM files.												516,840	CTS-7
U.S.	NIH/LHC National Institute of Drug Abuse	CTS ATS-6	Use of two-way video to allow selected youth teams from different parts of the country to discuss common problems in drug abuse prevention program.												516,840 848,849	CTS-7
U.S.	NIH/LHC D.T. Washington Foundation	CTS	Bethesda and L.A. were involved in drug abuse conference. Presenters were from Howard U. and Kagi House. Two-way audio-video.												848,849	CTS-7

HEALTH SERVICES (CONT'D)

LOCATION	AGENCY OR SPONSOR	SAT.	DESCRIPTION	TIME FRAME												UD ACC. NO.	EXP. NO.
				69	70	71	72	73	74	75	76	77	78	79			
			<u>CONFERENCE (CONT'D)</u>														
U.S.	NIH/LHC East-West Acad. of Healing Arts	CTS	Presenters in Bethesda and Menlo Park interacted on Oriental and Indian healing methods. Participants were fed. health agency adm. and Univ. faculty. Two-way sites for presenters, one-way for several hosp. in Calif.												848,849	CTS-7	
U.S.	NIH/LHC Inst. for Pediatrics	CTS	Two three hour sessions and one six hour session on the family. Audience was health professionals in Alaska, Cal., Colo. and Wash., D.C.. Two-way video and audio, some one-way audio.												848,849	CTS-7	
Alaska Northwest U.S.	HET/WAMI NIH/LHC	CTS	Interactive programs directed toward recruitment of minorities. Programs directed to students and parents.												555,562 780	CTS-1	
Western U.S.	VA	CTS	Individual and conference communications between hospitals in network. Emphasis on two-way video transmission. Mobile units make production possible at any hospital in the network.												555,562 780	CTS-11	
U.S.	NIH/LHC Soc. for Neurosciences	CTS	Info. dissemination and exchange at annual meeting. Anaheim and Bethesda were the two-way sites involved.												848,849	CTS-7	
Eastern U.S.	NIH/LHC Greater Cleveland Hosp. Assoc.	CTS	Info. dissemination and exchange at annual meeting. Cleveland and Bethesda were two-way sites. SECA sites were one-way video with return audio by phone.												848,849	CTS-7	
Appalachia	AESP/ARC U. of Cincinnati	ATS-3 ATS-6	A seminar to provide information about U.C.'s non-residential degree program in health planning and adm. One-way video with two-way audio.												937	673	

HEALTH SERVICES (CONT'D)

LOCATION	AGENCY OR SPONSOR	SAT.	DESCRIPTION	TIME FRAME												UD ACC. NO.	EXP. NO.
				69	70	71	72	73	74	75	76	77	78	79			
			<u>CONFERENCE (CONT'D)</u>														
Colorado Maryland	NIH/LHC U. of Colorado Med. Center PSSC	CTS	Full duplex video-audio was used to enable rural health planners in Bethesda and Denver to discuss bio-medical communications.												952	CTS-21	
U.S.	Amer. Hospital Assoc. PSSC	CTS	Selected sessions at AHA convention were transmitted to adm. at approx. 250 hospitals. Demonstration involved both CTS and Westar I, 4 CTS transportable terminals, 18 receive-only terminals, and tie-in with 8 terrestrial networks.												952	CTS-21	
Maine New Hampshire Vermont	Med. Care Dev., Inc. PSSC	CTS	Demonstration to assess the potential of interconnecting hospital television networks for cont. educ. and resource sharing. Interactive through transportable terminals.												952	CTS-21	
			<u>CONSULTATION</u>														
Alaska	State of Alaska NIH	ATS-1	Daily voice communication between doctors at regional center and remote health aides. Aide relays patients symptoms to doctor and doctor prescribes treatment.												34,526,128	227	
Alaska	State of Alaska NIH	ATS-1	"Grand rounds" initiated from Fairbanks Memorial Hospital. Voice communication only.												128,276	227	
Alaska	NIH/LHC HET	ATS-1 ATS-6	Two-way video between Tanana, Anchorage, Galena, and Fort Yukon. Experiment enabled doctors to diagnose illnesses. Approximately 100 cases demonstrated feasibility of system, including recall of computerized patient records.												508,511 572,573 579,690	300 612 677	
U.S.	HET/VA	ATS-6	Televising of grand rounds from hospital with interactive communication between presenter and audience. Case histories, diagnosis and treatment were presented live.												576,625 675,690	612	

HEALTH SERVICES (CONT'D)

LOCATION	AGENCY OR SPONSOR	SAT.	DESCRIPTION	TIME FRAME											UD ACC. NO.	EXP. NO.
				69	70	71	72	73	74	75	76	77	78	79		
			<u>CONSULTATION (CONT'D)</u>													
Alaska	WAMI NIH/LHC	ATS-6	Specialists consulted on patients with skin problems presented by physicians in Fairbanks. Two-way color video proved feasible for treating skin diseases. Black and white video was tried but found inadequate.												515,651 652	612
Alaska	WAMI NIH/LHC	ATS-6	Clients at Omak with psychological problems were presented to specialists in Seattle. Experiment was regarded as having limited success. Two-way video.												515	612
Western U.S.	VA	CTS	The use of two-way video for consultation between physician at urban medical centers and physicians and others at remote hospitals.												780	CTS-11
Alaska Northwest U.S.	WAMI	CTS	Physicians in remote locations use video link to present patients to physicians at UW Medical Center.												780,792	CTS-12
Canada	Univ. of Western Ontario	CTS	Experiment to evaluate use of satellite to provide emergency and routine psychiatric consultation through an audio-visual interactive link. Standard psychological test battery, scoring and interpretation available.												750	
Canada	Univ. of Newfound- land	CTS	Teleconsultation between patients at James Bay and Moose Factory Hospital and doctors at University Hospital. All three sites linked by audio, Moose and University Hospital's had video. ECG's, x-rays and heartbeat were transmitted.												710,711	
Western U.S. Alaska	PSSC, VA AAHS	ATS-6 CTS	The Alaska/Veterans Adm. (ALVA) Experiment linked the AAHS at Anchorage with the VA's CTS exp. network on biomedical applications of sat. communications.												922	667

HEALTH SERVICES (CONT'D)

LOCATION	AGENCY OR SPONSOR	SAT.	DESCRIPTION	TIME FRAME												UD ACC. NO.	EXP. NO.
				69	70	71	72	73	74	75	76	77	78	79			
			<u>DATA TRANSMISSION</u>														
Eastern U.S.	Duke Med. School	ATS-1	Transmission of x-rays from one ground station to another. Transmission was of good quality.				■								16,55298	102	
Alaska	Univ. of Washington NIH	ATS-1	A one-lead ECG screener was used to transmit ECG's from rural Alaska via satellite to Univ. of Washington. During Jun-Aug 1972, ten were good, 3 marginal, and 7 unacceptable.				■								40,128271	227	
South Pacific	PEACESAT NIH	ATS-1	ECG's were transmitted from Hawaii to New Zealand using Xerox TC 400 telecopier. Real-time transmissions using a twelve-lead ECG were also made. Several methods of transmitting x-rays were tried, including Polaroid prints, wire photo-equipment and positive photographs.				■								66	235	
U.S.	HET/VA	ATS-6	VIDAC, a system developed by Westinghouse for transmitting audio-visual signals in compressed form, was tested at V.A. Hospital at Dublin. Ratio of real to compressed time is about 240:1.					■							576	612	
Southern U.S.	Southern Reg. Med. Consortium	ATS-1	Satellite was used to transmit voice and ECG signals from an ambulance into the emergency room at hospital.									■			530	316	
Canada	Univ. of Newfoundland	CTS	ECG's x-rays and heartbeats were transmitted between three hospitals in Canada.										■		710,711		
Western U.S.	U. of Colo. Medical Center	CTS	A CT scanning network was to investigate the possibility of time-sharing for a computerized axial tomography.											■	877	CTS-35	

HEALTH SERVICES (CONT'D)

LOCATION	AGENCY OR SPONSOR	SAT.	DESCRIPTION	TIME FRAME												UD ACC. NO.	EXP. NO.
				69	70	71	72	73	74	75	76	77	78	79			
			<u>EDUCATION</u>														
Pacific	Univ. of Hawaii Amer. Samoa	ATS-1	A pilot program to study the use of satellite to achieve nursing education objectives in the Pacific area. Prior to exchanges video tapes were mailed to participants. Topic was on nurse-patient interaction.					■								745	235
U.S.	HET/VA	ATS-6 CTS	Use telecommunication to provide patients and their families with information needed for home care or rehabilitation. Three clinics were conducted.					■						■		576,625 690,780 792	612 CTS-11
U.S.	HET/VA	ATS-6 CTS	Two-way video seminars on health related topics for doctors and nurses in V.A. Hospitals. First half of program was a pretaped presentation. Second half of program consisted of interactive discussion of topic.					■						■		567,573 576,625 690,780 792	612 CTS-11
Alaska	HET/WAMI NIH/IJC	ATS-6	WAMI students were sent to rural areas during the clinical phase of the medical education. Students maintain contact with med. school via ATS-6. Case presentations and evaluations were made using a video link.					■								511,515 527,572 573,690 932	612
Alaska Northwest U.S.	HET/WAMI U. of Wash. School of Medicine	ATS-6 CTS	Beginning science course for first year medical students away from Univ. of Washington campus. Two-way video. Lectures taped and sent to students prior to satellite class. Satellite time devoted to discussion of material.					■						■		511,515 527,555 562,652 690,746 780,792 840,848 849,932	612 CTS-11

HEALTH SERVICES (CONT'D)

LOCATION	AGENCY OR SPONSOR	SAT.	DESCRIPTION	TIME FRAME												UD ACC. NO.	EXP. NO.
				69	70	71	72	73	74	75	76	77	78	79			
			<u>EDUCATION (CONT'D)</u>														
U.S.	HET/VA	ATS-6	CAI program in clinical decision making was shown to nurses in V.A. Hospitals at Fayetteville and Altoona. Response through keyboard.								■				576,675	612	
Rocky Mtns.	Mtn. Sts. Health Corp. (MSHC)	ATS-6	The dissemination of refresher training materials to emergency med. technicians in Montana.										■		922	671	
U.S.	U. of Wash. School of Nursing NIH/LHC	CTS	NCAST (Nursing Child Asses. Sat. Training) a series of classes to disseminate information on child care to nurses at diverse sites. Both two-way color TV and one-way TV with telephone feedback to be used.										■		516,783 792,840 848,849 932	CTS-7	
Canada	Univ. of Newfoundland	CTS	Interactive video from University Hospital to remote terminals. Audio-visual to remote with audio only from remote. Continuing medical education provided for doctors and nurses. Also, health education provided for community. For instance, prenatal and infant nutrition for mothers.										■		710		
U.S.	NIH/LHC American Dietetic Assn.	CTS	A workshop for dietitians to discuss the "Patient Nutrition Handbook" and financial planning for food service systems. Two-way video between Denver, Seattle and Bethesda. Programs involving VA hospitals were one-way video, two-way audio.											■	516,792 840,848 849,932	CTS-7	
Alaska Northwest U.S.	U. of Wash. Sch. of Medicine	CTS	Delivery of medical education to physicians and others practicing in isolated areas who need to keep current on medical advancements. Satellite provides interactive reinforcement.											■	555,562 780,792 840,848 849,934	CTS-13	

HEALTH SERVICES (CONT'D)

LOCATION	AGENCY OR SPONSOR	SAT.	DESCRIPTION	TIME FRAME												UD ACC. NO.	EXP. NO.
				69	70	71	72	73	74	75	76	77	78	79			
			<u>EDUCATION (CONT'D)</u>														
U.S.	NIH/LHC U. of Kentucky, Maryland, Colorado, Wash., & Florida	CTS	Use of two-way video telecommuni- cation for dental education. Den- tists in Bethesda, Seattle & Denver interacted with dental school faculty on office design, accounting, and practice analysis.												516,792 840,848 849,932	CTS-7	
U.S.	NIH/LHC U. of Wash. Colorado, S. Carolina	CTS	Project Reach used two-way video tele- com. to disseminate information on various medical topics to profes- sionals in Fairbanks and Denver. Receive only with telephone call-back was used in 29 cities in the SECA network.												848,849 932	CTS-7	
U.S.	NIH/LHC Inst. for Pediatrics	CTS	Continuing education for doctors and interns on pediatrics. Audience in- cluded Alaska, Calif. and Wash., D.C. Some sites were two-way audio-video, others were one-way video.												848,849	CTS-7	
Eastern U.S.	NIH/LHC D.T. Washington Foundation	CTS	Ten two-hour allied health conferences were held between Tuskegee Inst. and G. Washington U. Programs dealt with physical therapy. Two-way audio- video.												848,849	CTS-7	
Western U.S.	VA	CTS	VA National Medical Journal, a weekly program for physicians, den- tists and nurses is broadcast to all hospitals in the network. Program discusses professional developments taking place throughout the country.												780	CTS-11	
Appalachia	AESP/ARC	ATS-6	A workshop on cardiovascular physical assessment for nursing professionals. Videotapes and interactive sessions. One-way video with telephone or tele- type talkback.												936		

HEALTH SERVICES (CONT'D)

LOCATION	AGENCY OR SPONSOR	SAT.	DESCRIPTION	TIME FRAME												UD ACC. NO.	EXP. NO.
				69	70	71	72	73	74	75	76	77	78	79			
			<u>EDUCATION (CONT'D)</u>														
Barbados	Dept. of State, AID	ATS-3	Transmit information from U.S. Red Cross to Red Cross in Barbados on latest techniques of CPR.													344	
Southwest U.S.	PSSC U. of S. Carolina	CTS	A series of cont. med. educ. programs. The interactive seminar linked 150 Univ. & hosp. in the S.E. and Ohio. AMA c.e. credits could be obtained.												897		
Southern U.S.	PSSC U. of Alabama	CTS	Cont. med. education in cardiology for physicians and restorative materials for dentists. One-way video with telephone return.												897		
			<u>RECORDS</u>														
Alaska	UW UA Stanford NIH	ATS-1 CTS	MEDLINE information retrieval system was initiated using teletype and xerox facsimile. Teletype improvements made communication successful.												270,275 276,780 792,840	282 CTS-7	
Alaska	IHS/LHC HET	ATS-1	Health records of patient in Tanana Service Unit stored in computer in Tucson, Arizona. Records were obtained via ATS-1 using a teletype.												508,511 572,573 579,690	100 612	
			<u>TESTING</u>														
U.S.	HET/VA	ATS-6	Experiment to determine whether a successful patient-computer interchange could be achieved by satellite. Patient responded to psychiatric-social questions displayed on a CRT. Hospitals involved were in Salisbury and Salt Lake.												576	612	
Canada	Univ. of Western Ontario	CTS	Experiment to evaluate use of satellite to provide psychiatric services. Standard psychological test battery, scoring and interpretation available.												750		

2.7 MARITIME COMMUNICATIONS

ATS experiments concerned with shore-to-ship and ship-to-shore communications are covered in this section. The large portion of these experiments involved the transmission of voice, teletype, and facsimile data between a ship and a shore base. Experiments of this type are categorized under the heading "Voice and Data Transmission". Experiments of a broader nature are listed under the heading "Fleet Management".

MARITIME COMMUNICATIONS

LOCATION	AGENCY OR SPONSOR	SAT.	DESCRIPTION	TIME FRAME												UD ACC. NO.	EXP. NO.
				69	70	71	72	73	74	75	76	77	78	79			
			<u>FLEET MANAGEMENT</u>														
Western Hemisphere	Allied Information Industries	ATS-3	Weather data, scheduling, inventory, routing, and daily summary reports were transmitted to ten ships in Atlantic and Pacific Oceans.													665,666 264	
Atlantic	Exxon General Electric	ATS-1 ATS-3	Voice, teletype, facsimile, and slow scan video were tested between Exxon offices in New York City and ship ESSO Bahamas in Atlantic. Voice was high quality, teletype was practically error free, facsimile and slow scan video were good.													15 293	
Atlantic	HARAD	ATS-5 ATS-6	Fleet management experiments involving voice, teletype, and facsimile transmission at L-band were performed to evaluate economic benefits derived by shipping companies being able to communicate with fleet ships.													605,602 605	
Western Hemisphere	U.S. Navy	ATS-3	An experiment to determine the viability of satellite communications network for use by the Naval Fleet Analysis Center.													510 321	
			<u>VOICE & DATA TRANSMISSION</u>														
Northwest Pacific	USCG	ATS-1	USCG cutter Klamath fitted with standard VHF/FM radio and two omnidirectional circularly polarized antennas conducted voice and digital data transmission tests. Digital communication was found to be superior to HF transmission													1 239	
Northwest Pacific	USCG	ATS-1	Voice and teletype communications between cutter Staten Island and ground stations in Virginia, California, and Australia.													664 239	

MARITIME COMMUNICATIONS (CONT'D)

LOCATION	AGENCY OR SPONSOR	SAT.	DESCRIPTION	TIME FRAME												UD ACC. NO.	EXP. NO.
				69	70	71	72	73	74	75	76	77	78	79			
			<u>VOICE & DATA TRANSMISSION (CONT'D)</u>														
South Pacific & Antarctica	USCG	ATS-1	VHF communications between ground station and C.G. Cutter Glacier while it sailed between U.S. and Antarctica. Reliable voice and teletype communications were demonstrated. Some testing was done with satellite in 1/2 power mode.	■												664	239
Atlantic & Pacific	Westinghouse MARAD	ATS-1 ATS-3	Voice and digital data (600 and 1200 bps) were transmitted from shore to ship and back. Voice was good. Analysis of data error rate was not complete but appeared higher than expected.	■												170,637	
Atlantic	Germany	ATS-3	Voice, teletype and random sequences of data were transmitted to research vessels Gauss and Meteor.	■												28,300	
Atlantic	USCG	ATS-3	Voice and teletype were transmitted at VHF between Roanoke, North Carolina and ship Casco.	■												664	
Western Hemisphere	General Electric NASA/GSPC	ATS-1 ATS-3	A network of mobile and fixed stations were involved in this two and one-half year study of communications via satellite. Voice and digital communications were high quality over approximately one-third of the earth's surface.	■												23	107
Atlantic	Applied Information Industries	ATS-5	Digital data was transmitted at L-band from ground station to ships SS Manhattan and ESSO Baltimore via ATS-5.	■												611, 989 See U.F. 20	247

MARITIME COMMUNICATIONS (CONT'D)

LOCATION	AGENCY OR SPONSOR	SAT.	DESCRIPTION	TIME FRAME											UD ACC. NO.	EXP. NO.
				69	70	71	72	73	74	75	76	77	78	79		
			<u>VOICE & DATA TRANSMISSION (CONT'D)</u>													
Atlantic	United Kingdom	ATS-1	Test of voice, teleprinter and facsimile transmission were conducted between ground station in England and ship Atlantic Causeway. Results were good.			■									1,20,31	225
Atlantic	Netherlands	ATS-1	VHF transmission of voice, teletype and facsimile between ground station in Netherlands and ships SS Nieuw Amsterdam and SS Atlantic Crown. Narrowband modulation technique.			■									264	226
North American	General Electric	ATS-1 ATS-5	A number of experiments to evaluate communications reliability and position fixing accuracy.				■								37,236 569,632 640	261
Eastern U. S.	General Electric MARAD	ATS-1	Use of satellite to transmit voice, teletype and facsimile between an inland waterway tugboat and the main office. Communications were all of high quality.				■								198,610	293
Western Hemisphere	Allied Information Industries	ATS-1	Real time voice communication and message store-and-forward processing were tested. More than 5000 messages were transmitted at C-band between ships in Atlantic and Pacific and ground station. Ten ships were equipped with AII MARSCAN systems.					■							665,666	264
Atlantic & Pacific	USCG MARAD	ATS-1	Two-way voice and data transmission between ground station and USNS Vanguard sailing from Florida to Argentina. High quality results were obtained using 2.5 ft. C-band dish antenna on ship.					■							645,666	239 265
Atlantic	Exxon	ATS-1	Voice and data communication between Exxon offices and tanker Exxon International.					■							530	293

MARITIME COMMUNICATIONS (CONT'D)

LOCATION	AGENCY OR SPONSOR	SAT.	DESCRIPTION	TIME FRAME												UD ACC. NO.	EXP. NO.
				69	70	71	72	73	74	75	76	77	78	79			
			<u>VOICE & DATA TRANSMISSION (CONT'D)</u>														
Atlantic	MARAD ATI Systems	ATS-5 ATS-6	Three voice modems were tested on two different ships. The COMSAT modem on LASH Atlantico, the Magnovox modem on American Ace, and the ATI modem on both. Voice, teletype and facsimile were transmitted.													605,670 682	248 605
Atlantic	USCG DOT/TSC	ATS-6	Voice and data communications to and from the cutters Sherman and Gallatin was used to modulate shipboard antennas and effects of multipath fading. Part of ATS-6 L-band experiment German ship Otto Hahn was also involved in the tests.													811,818	657 664
U.S.	General Electric	ATS-6	A ship on the Great Lakes equipped with a mobile communication radio. Also carried receiver for timing signals from NOAA GOES satellite.														674

2.8 METEOROLOGY

The most important meteorological use of the ATS was taking and transmitting cloud pictures. These cloud pictures, taken over large segments of the earth, complement data from other sources and give the research meteorologist an overview of the weather patterns. There have been a large number of cloud motion studies from ATS pictures. Other meteorological uses of satellites that are summarized in this section, are unmanned data platform and weather radar interrogation.

METEOROLOGY

LOCATION	AGENCY OR SPONSOR	SAT.	DESCRIPTION	TIME FRAME										UD ACC. NO.	EXP. NO.	
				69	70	71	72	73	74	75	76	77	78			79
			<u>BUOY INTERROGATION</u>													
North Pacific	General Dynamics USCG	ATS-1	Interrogation of data from unmanned buoy by ground station at Mojave, California. System performed adequately, but reliability was less than needed for an operational system.		■										251	239
Norway	Norway	ATS-1	Interrogated unmanned ocean buoy (SCOMB-1) located outside Bergen. Ground station was at Oslo.			■									28,29	233
U.S.	Sierra Research Corporation	ATS-3	Weather radar data was transmitted from mountain top unmanned radar installations to data center for analysis. Hurricane surveillance.					■							6,7,530	287
Antarctica	Desert Research Institute	ATS-1	Transmission of weather radar												530	318
		ATS-3	pictures on a real time basis from Palmer Station, Antarctica.													
			<u>SATELLITE PHOTOS</u>													
Pacific	NCAR	ATS-1	Photos from ATS-1 were used in conjunction with meteorological data gathered by ground stations to obtain a better understanding tropical zone dynamics.	■											177,193 284	205
U.S.	Stanford Univ. of Chicago HESS	ATS-3	Numerous studies of cloud motion from satellite photos have been made. Estimates of winds, cloud distributions, tornadoes, etc. have been made.	■	■										69,70 107,109	205 210
Atlantic	FSD NCAR	ATS-3	Pictures from satellite were used in study of interaction between ocean and atmosphere that took place near Barbados.	■	■										191,069	210
Pacific	Univ. of Wisconsin	ATS-1	ATS-1 photos of Pacific area were used with the Cox-Munk technique of sea-slope distribution to calculate winds from sun glitter.	■											1	205

METEOROLOGY (CONT'D)

LOCATION	AGENCY OR SPONSOR	SAT.	DESCRIPTION	TIME FRAME										UD ACC. NO.	EXP. NO.	
				69	70	71	72	73	74	75	76	77	78			79
			<u>SATELLITE PHOTOS (CONT'D)</u>													
Florida	Univ. of Miami Army	ATS-1	Satellite photos were compared to corresponding radar data to determine % of cloud area covered by radar.												862	205
Western U.S.	Colorado State Univ.	ATS-3	Satellite photos were used to determine anvil area and brightness characteristics of severe thunderstorm cells.												856	210
U. S.	Control Data Naval Post Sch.	ATS-1	Satellite photos were used to analyze cloud patterns for the purpose of defining indirect measures of intensity of tropical storms.												858	
U. S. Venezuela Honduras	NOAA	ATS-3	Satellite photos were used to make estimates of rainfall during hurricanes. Overall estimates differed by 49%.												571	210
Florida	USAF	ATS-3	Satellite photos were used to analyze the progress of the smoke plume from a fire in the Everglades.												547	210
			<u>VERY HIGH RESOLUTION RADIOMETER</u>													
U. S.	NASA/GSFC ITT	ATS-6	The VHRM was used to accurately determine cloud motion and to improve methods of estimating surface temperature. High spatial and radiance resolution data in the visible and infrared window was recorded. Equipment failed 3 mos. after launch.												766,846	602

2.9 RANGING AND POSITION FIXING

Ranging and position fixing experiments have been an integral part of the ATS program from its inception. The first successful position location experiment occurred in February, 1968. Since that time several different ranging techniques have been used to locate fixed and mobile platforms. Recent efforts have been directed toward the development of a complete Air Traffic Control System and a Search and Rescue System.

Major experimenters in this area are the Federal Aviation Administration, the Maritime Administration, the U.S. Coast Guard, General Electric Company, Westinghouse Corporation, Boeing Airplane Company, Texas Instruments, Inc. and Applied Information Industries.

RANGING AND POSITION FIXING

LOCATION	AGENCY OR SPONSOR	SAT.	DESCRIPTION	TIME FRAME												UD ACC. NO.	EXP. NO.
				69	70	71	72	73	74	75	76	77	78	79			
			<u>MODULE (AIR)</u>														
Dallas, Texas	Texas Instruments	ATS-1 ATS-3	Test to determine accuracy that could be obtained using sidetone ranging signals relayed to two satellites. Experiment demonstrated that the use of differential position location techniques could provide location accuracy of approximately 2nm. Ground station was the Omega Position Location Equipment (OPLE) control center.												1,673		
North Atlantic	General Electric DOT/FAA	ATS-1 ATS-3	Ranging tests with transponder at Gander, Newfoundland. Approximately 3000 determinations with errors of ± 1 nm. Ranging tests also performed with DC-6 inflight. 63 of 79 fixes agreed to within ± 1 nm of radar fixes.												116	234	
North America	General Electric	ATS-5	A tone-code ranging transponder was used to compare ranging measurements and communications at VHF and L-Band.												37	261	
North Atlantic	Boeing DOT/FAA	ATS-5	One way ranging at L-band between ground station and aircraft via ATS-5. Ranging measurements were made by phase comparison of received ranging tones with reference tones generated on board aircraft.												200,556	251 252	
North Atlantic	DOT/TSC DOT/FAA USCG Canada ESA	ATS-5 ATS-6	Range measurements between ground station and aircraft via ATS-5 and ATS-6. Two different ranging modems were tested, the TSC digital tone modem and the NASA/PIACE modem. Typical RMS one way range errors (1 σ) were: TSC modem 100 m and NASA modem 276 m.												549,552 670,687 734,022 776,944	605 664	

RANGING AND POSITION FIXING (CONT'D)

LOCATION	AGENCY OR SPONSOR	SAT.	DESCRIPTION	TIME FRAME												UD ACC. NO.	EXP. NO.
				69	70	71	72	73	74	75	76	77	78	79			
			<u>MOBILE (AIR) (CONT'D)</u>														
Eastern U.S.	DOT/FAA USCG	ATS-6	Satellite supported real time voice, digital data, and ranging communication between test aircraft and an experimental ATC ground terminal. All communications were of good quality. Using NASA PLACE receiver equipment, projected accuracies of 2km were not realized.													549,734 605 664	
			<u>MOBILE (SURFACE)</u>														
Atlantic & Pacific	Westinghouse MARAD	ATS-1 ATS-3	Ranging tests were performed on the ship SS Santa Lucia during a trip from Neward to Argentina.													178,637 249	
Atlantic	Westinghouse MARAD	ATS-1 ATS-3	Ranging tests between ground station and SS Santa Lucia sailing from Neward to Chile. Ranging marginal because of lock-on problems.													178 249	
Bermuda	General Electric	ATS-3	Ranging tests using oceanic buoy near Bermuda. Buoy was interrogated via ATS-3 and estimates of buoy position made. Also located mobile units on land and sea.													1,633 868 229	
Atlantic	Germany	ATS-3	Research vessels Gauss and Meteor performed side-tone ranging. Line of position accuracy from 1-2nm.													28	
Western Hemisphere	General Electric NASA/GSFC	ATS-1 ATS-3	Position fixes using GE's tone-code ranging technique were made for a variety of mobile and fixed stations. Ranging interrogations originated at GE's Radio-Optical Observatory in Schenectady, New York using ATS-1 and ATS-3.													23 288	

RANGING AND POSITION FIXING (CONT'D)

LOCATION	AGENCY OR SPONSOR	SAT.	DESCRIPTION	TIME FRAME												UD ACC. NO.	EXP. NO.
				69	70	71	72	73	74	75	76	77	78	79			
			<u>MOBILE (SURFACE) (CONT'D)</u>														
North Atlantic & U.S.	Applied Information Industries	ATS-5	L-band signals containing ranging modulation were transmitted from Mojave, California to Mooretown, New Jersey and SS Manhattan going between Newport News, Virginia to Thule, Greenland. ORION receiver was a lock-loop type which did not require carrier lock.			■										2,611 989	249
North America	General Electric	ATS-5	A tone-code ranging transponder was used to compare ranging measurements and communications at VHF and L-Band.				■■■■■■■■■■									37	261
New Mexico	Sandia/AEC	ATS-1 ATS-3	A ranging tone was sent from the base station to the mobile unit and a digital phase meter measured the delay between transmitted and received signal. Position location was not attempted because of equipment failure.			■										See U.P. 008	284
Atlantic	USCG NASA/GSFC MARAD	ATS-3 ATS-5	In preparation for PLACE, a sea test phase using C-band to USNS Vanguard between Florida and Argentina. Position location from two-way side-tone ranging. Typical PLACE computed position location data was found to yield errors of less than 2nm.					■								645,666	239 265
Atlantic	General Electric EXXON	ATS-1 ATS-3	Position fixes on ESSO Bahamas between New York and Venezuela were obtained using General Electric's tone-code ranging technique. Accuracies of 1.5nm were reported.					■■■■								15,292	228
North Atlantic & U.S.	MARAD	ATS-5 ATS-6	Position determination test involving the ships LASH Atlantico and American Ace. Position location results were not available at time of report.							■■■■						605,670 682	605

RANGING AND POSITION FIXING (CONT'D)

LOCATION	AGENCY OR SPONSOR	SAT.	DESCRIPTION	TIME FRAME										UD ACC. NO.	EXP. NO.	
				69	70	71	72	73	74	75	76	77	78			79
			<u>MOBILE (SURFACE) (CONT'D)</u>													
North Atlantic	USCG DOT/TSC	ATS-6	Ranging modulations involving the C.G. cutters Sherman and Gallatin and the German ship Otto Hahn. Part of ATS-6 L-band experiment.												818,883	664
			<u>SEARCH AND RESCUE</u>													
Azores Islands	DOT/FAA USCG Canada Germany ESA	ATS-6	A typical SAR incident was staged using a buoy in the vicinity of the Azores Islands to transmit a signal via ATS-6 to Rosman, North Carolina. Rosman then alerted rescue vessels to the location of the buoy. Test were highly successful.												549,552 670,683 685,686 687,734 777,778 818,884	664
Western U.S.	General Electric Drug Enforce. Adm.	ATS-1 ATS-3	Tone-code ranging technique was used to locate station wagon equipped with transmitter. Ground station was in Schenectady, New York. Test were made with mobile unit in Washington, D.C. and Far West. True position within 0.5 mi. in Washington and 3 mi. in Far West.												631,767	310
Bermuda	Baker Development Corporation	ATS-3	Test of low-cost locate and rescue system. Equipment installed on sloop "SIRIUS" sailing in the area of Bermuda.												684	319
U.S.	G.E.	ATS-6	One experiment involves five tracks equipped to use in SAR missions. Another phase uses GE's ranging technique to locate a ship on the Great Lakes.													674
			<u>SPACECRAFT</u>													
U.S.	NASA/GSFC	ATS-6	The on-board interferometer is used to precision 3-axis sensor. It also provides measurements of spacecraft orbit position. The SAPPAC Experiment utilized interferometer data.												766,864	604 607 610

RANGING AND POSITION FIXING (CONT'D)

LOCATION	AGENCY OR SPONSOR	SAT.	DESCRIPTION	TIME FRAME											UD ACC. NO.	EXP. NO.
				69	70	71	72	73	74	75	76	77	78	79		
			<u>SPACECRAFT (CONT'D)</u>													
U.S.	NASA/GSFC	ATS-6	ATS-6 was used to track GEOS-3 so that orbit computations could be made without the aid of multiple ground stations.												766,865 911	617 620
U.S.	NRL/NAVY	ATS-6	Experiment made use of ATS-6 VHF transmitter and selected ground receiving equipment to study satellite bistatic radar.													666
			<u>STATIONARY</u>													
Bermuda	General Electric NASA/GSFC ONR/NAVY	ATS-3	VHF range measurements were made from signals received from a Sea Robin buoy. Ranging precision was approx. 1200 feet.												23,868	228
U.S.	NASA/GSFC	ATS-3	OPLS system, control center, and various platform electronics were used to find positions. Comparison of OPLS derived position fixes showed differences in the range of 1-4nm.												1,868	228
Massachusetts	Smithsonian Astrophysical Observatory	ATS-5	SAO conducted VLBI observations of L-band emissions from ATS-5. Analysis shows existence of interference fringes related to the modulation wave form.												981	
West Coast	Westinghouse NASA/GSFC	ATS-1 ATS-3 ATS-5	Tests at Mojave, California analyzed various ranging techniques including C-band and L-band ranging to ATS-5, L-band to ATS-5 concurrent with C-band to ATS-1, and C-band to ATS-1 concurrent with VHF to ATS-3.												618	246 250
Western Hemisphere	General Electric NASA/GSFC	ATS-3 ATS-5	Automatic tone-code ranging L-band technique was used via ATS-5 to fix positions of transponders in Shannon, Ireland; Reykjavik, Iceland, Kings Point, New York; Seattle, Washington, and Buenos Aires, Argentina. Errors were reported in hundreds of feet.												640,892	214

2.10 SATELLITE ENVIRONMENT

Experiments that involved an investigation of the characteristics the environment around the satellite are cataloged in this section. Many of these were conducted under the EME studies.

SATELLITE ENVIRONMENT

LOCATION	AGENCY OR SPONSOR	SAT.	DESCRIPTION	TIME FRAME										UD ACC. NO.	EXP. NO.	
				69	70	71	72	73	74	75	76	77	78			79
			<u>SATELLITE ENVIRONMENT</u>													
U. S.	UCLA	ATS-1	Experiment to measure magnetic field properties in the vicinity of ATS-1.	■											83 85,86 90	
U. S.	Lockheed, Palo Alto, California	ATS-5	Auroral-particle fluxes in the energy range from 0.5 to 50 kev were measured. Measurements were compared with those from OV 1-18 satellite.	■											87	
U. S.	U. C. at Berkeley	ATS-5	Energetic proton and electron flux measurements were made on ATS-5 during magnetopause crossings.		■										81,84 89	
U. S.	U. C. at La Jolla, California	ATS-5	Measurements of charged particles in the magnetosphere to determine the energy spectra of charged particles on auroral lines of force.		■										88	
U. S.	NASA/GSFC	ATS-6	The Apollo-Soyuz Geodynamics Exp. used ATS-6 to demonstrate the feasibility of tracking and recovering high frequency components of the earth's gravity field.						■						870,906 907,908	640
U. S.	OSU AF Geophysics Lab	ATS-6	Satellite-to-Satellite range-rate observations from ATS-6/GEDS-3 were used to obtain mean gravity anomalies						■						874,902	620
U. S.	UCLA	ATS-6	An onboard fluxgate magnetometer was used to continuously monitor the magnetic field at synchronous orbit. The small space craft field made studies of the macroscopic field possible.						■						891,884	631
U. S.	Aerojet Corp.	ATS-6	The Solar Cosmic Ray and Trapped Particle Experiment studied the entry propagation and loss of solar cosmic rays and the acc. and loss of trapped particles in the magnetosphere.						■						890	611

SATELLITE ENVIRONMENT (CONT'D)

LOCATION	AGENCY OR SPONSOR	SAT.	DESCRIPTION	TIME FRAME												UD ACC. NO.	EXP. NO.
				69	70	71	72	73	74	75	76	77	78	79			
			<u>SATELLITE ENVIRONMENT (CONT'D)</u>														
U. S.	U. of California at San Diego	ATS-6	The Auroral Particles Experiment was concerned with the determination of those magnetospheric processes contain and accel. charged particles was the earth.												889,884 925	631	
U. S.	U. of Minnesota	ATS-6	The electron-proton spectrometer experiment studied the dynamics of energetic electrons and protons in the outer radiation zone and the near-earth plasma sheet.												888,884	631	
U. S.	Aerospace Corp.	ATS-6	An electron-proton spectrometer was used to gather data on the behavior of energetic magnetospheric electrons as well as fluxes of solar protons and alpha particles.												887,884	631	
U. S.	NASA/Wallops	ATS-6	GEOS-1/ATS-6 satellite-to-satellite tracking data was used to determine terrestrial ionospheric refractive indices.												901	620	
U. S.	U. of Illinois	ATS-6	Signals at 40, 140, and 360 MHz (Radion beacon Exp) were analyzed the frequency dependence of ionospheric scintillations.												910	631	
World	McDowell Douglas Observatory	ATS-6	ATS-6 magnetic field measurement in conjunction with North and South solar ground-based observations were used to study solar cosmic ray access propagation.												917	631	
U. S.	NOAA	ATS-6	The Low Energy Proton Exp. Investigated those protons thought to be responsible for the geomagnetic storm-time extraterrestrial ring current. Also looked for existence of heavy ions.												886	631	

SATELLITE ENVIRONMENT (CONT'D)

LOCATION	AGENCY OR SPONSOR	SAT.	DESCRIPTION	TIME FRAME												UD ACC. NO.	EXP. NO.
				69	70	71	72	73	74	75	76	77	78	79			
			<u>SATELLITE ENVIRONMENT (CONT'D)</u>														
U. S.	U. of New Hampshire	ATS 6	The Low Energy Electron-Proton Exp. was designed to monitor the spectra and pitch angle distributions of electrons and protons from 0 to 22 keV. Little data were obtained because of interference.												885	631	
U. S. Europe	NOAA	ATS-6	The radio beacon Exp. 40-160 MHz phase-coherent continuous waves are recorded at a number of ground stations to provide a measure of total columnar electron content from sat. to ground.												590,766 895,910	606	
			<u>SATELLITE TRACKING AND CONTROL</u>														
U. S.	NASA/GSFC	ATS 6	The Spacecraft Attitude Precision Pointing and Showing Adaptive Control (SAPPSAC) Experiment demonstrated the ability to maintain precise attitude stabilization in the presence of disturbing inputs.												766	604	
U. S.	NASA/GSFC	ATS-6	The Interferometer High-Speed Data Rate Acquisition System (IHDRAS) Experiment was concerned with attitude and position the satellite.												766,864	607	
U. & S. America	NASA/GSFC	ATS 6	The Tracking and Data Relay Experiment (TDRE) used ATS-6 to control low orbit satellites such as GEOS-1.												766,865 911,986	617 620	

2.11 TIME AND FREQUENCY DISSEMINATION

Experiments dealing with time and frequency dissemination are listed in this section. A number of one-way and two-way experiments were performed from 1967 to 1977. The National Bureau of Standards, which did the most experimentation, concentrated on a one-way mode for time transfer.

TIME AND FREQUENCY DISSEMINATION

LOCATION	AGENCY OR SPONSOR	SAT.	DESCRIPTION	TIME FRAME										UD ACC. NO.	EXP. NO.
				69	70	71	72	73	74	75	76	77	78		
			<u>TIME AND FREQUENCY DISSEMINATION</u>												
Boulder, Colorado	ESSA	ATS-1	Time dissemination experiment using simple ground equipment to communicate through ATS-1. Results indicated that an operational system with errors of 10µs should be possible.	■											1
Atlantic & Pacific	Westinghouse MARAD	ATS-3	Time code was transmitted over voice channel from ground station to ship SS Santa Lucia. Demonstration showed the time display on board could be used for timing within a few hundred microseconds.	■											178,637
Barstow, California	Westinghouse NASA/GSFC	ATS-1 ATS-3	Mojave and Rosman ground stations transmitted pulses through satellite. Time between transmitted pulse and that received from the other station was measured. Accuracy estimated to be 100ns.				■								1
Barstow, California	Smithson. Astro. Obs. NASA/GSFC	ATS-1 ATS-3	VLBI clock synchronization experiment. 10µs pulses at C-band were exchanged between Mojave and Rosman ground station. The probable error of the difference in the mean values of the clock offset was 10ns.				■								32 253
Boulder, Colorado	NBS	ATS-3	One-way time synchronization. Broadcast WWV time and frequency from Boulder, Colorado to four sites in Western Hemisphere. Signals were frequency modulated and occupy a 30 kHz bandwidth. Signals composed of voice announcement of time-of-day, ticks every second, tones and time code were broadcast 5 days a week.				■								19,47 285,617 238
Barstow, California	NASA/GSFC FAA	ATS-1	Time dissemination from master station at Mojave to slave station at Rosman. A two-way time transfer technique was used to eliminate the need for a priori knowledge of propagation path delay. An accuracy of 50ns (1σ).				■								514

TIME AND FREQUENCY DISSEMINATION (CONT'D)

LOCATION	AGENCY OR SPONSOR	SAT.	DESCRIPTION	TIME FRAME												UD ACC. NO.	EXP. NO.
				69	70	71	72	73	74	75	76	77	78	79			
			<u>TIME AND FREQUENCY DISSEMINATION</u> <u>(CON'D)</u>														
Kashima, Japan	RRI/Japan	ATS-1	Time comparison between Kashima, Japan and Rosman, N.C. ground station. A spread spectrum random access (SSRA) system was used in a two-way technique at SHF.								■				598,617	304	
Japan	RRI/Japan	ATS-1	Establish domestic VLBI system between Kashima and Yokosuka, Japan and determine baseline sector between the two antennas.									■			530	304	
Canada	Institute of Research of Hydro-Quebec	CTS	A differential method was used for clock synchronization. A clock signal was transmitted via satellite to main station at Ottawa and is returned to sending station. Optimum accuracy was 10-15µs.										■		710		
U.S.	Univ. of Illinois	CTS	Experiment to measure the absolute phase difference between two atomic oscillators situated at observatories separated by thousands of kilometers.											■		CTS-20	
U.S., Canada	Naval Observatory	CTS	A three-way time transfer experiment between Washington, D.C., Denver, and Ottawa.											■	877	CTS-31	

2.12 WAVE PROPAGATION

The Millimeter wave experiment was initiated in 1969 with the launching of ATS-5 and provided measurements at 15.3 and 31.65 GHz. Additional measurements of the propagation characteristics of space-to-earth links centered at 20 and 30 GHz were made using ATS-6, which was launched in 1974. Studies at eleven sites in the continental United States were directed at an evaluation of rain attenuation effects, scintillations, depolarization, site diversity, coherence bandwidth and analog and digital communications techniques. In addition to direct measurements, methods of attenuation prediction with radars, rain gauges, and radiometers were tried. The Millimeter Wave Experiment was developed and implemented by NASA Goddard Space Flight Center.

WAVE PROPAGATION

LOCATION	AGENCY OR SPONSOR	SAT.	DESCRIPTION	TIME FRAME											UD ACC. NO.	EXP. NO.
				69	70	71	72	73	74	75	76	77	78	79		
			<u>C & L BAND</u>													
U.S.	ATI Systems	ATS-5	System 621B Signal Demonstration Test. L-Band ionospheric propagation variation was evaluated by comparing L-band and C-band measurements.			■									19	243
Canada	CRC	ATS-1	Observation of effects of high latitude and low elevation on C-band signals.			■									893	257
Canada	CRC	ATS-5	Evaluation of ionospheric fading characteristics at L-band as received at Churchill, Manitoba, and Ottawa, Ontario.			■									309	260
Brazil	COMSAT	ATS-5	L-band and C-band signals from ATS-5 were monitored by COMSAT at their Brazil station. Data were analyzed to determine the frequency dependence of the scintillation magnitude.			■										259
	DOT/FAA	ATS-5	An experiment to measure fading in L-band signals from ATS-5.					■							982	
U.S.	NASA/GSFC	ATS-6	Radio frequency interference measurements were made to determine the potential of terrestrial microwave links pointed at the horizon causing uplink interference for satellites.						■						593	601
Pennsylvania	Valley Forge Research Center/ U. of Penn.	ATS-6	Measurements were made and C and L-band to determine the phase difference between two receivers as a function of their spatial separation.									■			972	621
Pennsylvania	Univ. of Pennsylvania	ATS-6	Phase differences between L-band and CW signals received at widely separated ground stations are used to give a measure of the phase spatial correlation and determine limitations on antenna arrays.									■			See U.F. 2-028	621

WAVE PROPAGATION (CONT'D)

LOCATION	AGENCY OR SPONSOR	SAT.	DESCRIPTION	TIME FRAME												UD ACC. NO.	EXP. NO.
				69	70	71	72	73	74	75	76	77	78	79			
Canada	CRC	ATS-6	C & L (CONT'D) Measurement of sea scatter on VHF and L-band signals and signal fading at C-band and MMW for very low elevation angles. <u>MILLIMETER WAVES</u> Primary facility for 20 and 30 GHz attenuation studies. Areas of investigation included attenuation, coherence bandwidth, differential phase effects, and scintillation. 15 ft. diam. antenna.												See U. F 2-030	657	
Pocomoke, North Carolina	NASA/GSFC	ATS-5 ATS-6 CTS													238,513 553,595 780,792 853,920 929,980	244-5 609 CTS-1	
Austin, Texas	Univ. of Texas NASA/GSFC	ATS-5 ATS-6 CTS	Measured attenuation of 10 GHz waves. Also ran two terminal site diversity experiments and radiometer experiments. 5 and 10 ft. diam. antennas.												238,513 553,600 669,699 780,792 898,979	244-5 609 CTS-1	
Columbus, Ohio	Ohio St. U. NASA/GSFC	ATS-5 ATS-6 CTS	Investigated attenuation of 20 and 10 GHz waves. Made 1 terminal site diversity studies as well as scintillation measurements. Radars, radiometers, 10 ft. and 15 ft. dia. antennas.												238,513 553,609 780,792 899,900 979,994	244-5 609 CTS-1	
Charlottesville, Virginia	COMSAT Labs NASA/GSFC	ATS-6	Measured attenuation of 13/18 GHz and 20/30 GHz waves. Also performed site diversity in Washington, D.C. area. Radiometers and 10 and 15 ft. dia. antennas.												513,553 594,979	609 658	
Baltimore, Maryland	Westinghouse NASA/GSFC	ATS-6	Investigation of attenuation and site diversity in Washington, D.C. area of 20 GHz waves. 12 ft. dia. antenna.												553,571 979	609	
Waldorf, Maryland	RDL NASA/GSFC	ATS-6	Investigation of attenuation and site diversity in Washington, D.C. area of 20 GHz waves. Radiometers and 60 ft. dia. antenna.												513,553	609	

WAVE PROPAGATION (CONT'D)

LOCATION	AGENCY OR SPONSOR	SAT.	DESCRIPTION	TIME FRAME										UD ACC. NO.	EXP. NO.	
				69	70	71	72	73	74	75	76	77	78			79
			<u>MILLIMETER WAVES (CONT'D)</u>													
Greenbelt, Maryland	NASA/GSFC	ATS-6 CTS	20 and 30 GHz measurements from ATS-6, 12 and 14 GHz from CTS. Attenuation and site diversity tests in Washington, D. C. area. Radiometers and 10 ft. dia. antenna.												513,553 780,792 853,979 980	609 CTS-1
Blackburg, Virginia	VPI NASA/GSFC	ATS-6 CTS	Investigated attenuation and depolarization of 20 GHz waves. 4 ft. dia. antenna. 11.7 GHz down- link during CTS tests with 4.5 inch horn antenna.												513,553 780,792 854,919 979,990	609 CTS-1
Richland, Washington	Battelle N.W. NASA/GSFC	ATS-6	Attenuation and radiometer experi- ments at 20 GHz. 30 ft. dia. antenna.												513,553 916,979	609
Holmdel, New Jersey	Bell Labs	ATS-6	Depolarization studies. 20 GHz waves using 12 ft. dia. antenna.												513,553 920	609
Ft. Monmouth New Jersey	OSASCA	ATS-6	Attenuation studies at 30 GHz. 15 ft. dia. antenna.												513,553	609
Netherlands	Eindhoven University ESTEC	ATS-6	Measurement of propagation data for 13/18 GHz and 20/30 GHz. Obser- vation sessions of approximately 4 hours each were distributed throughout the year for 9 European sites.												797,798 825,958	608 638
England	U. of Birmingham	ATS-6	Measurements of fading and cross- polarization of the 30 GHz signal were recorded. Simultaneous recordings of sky noise temp. were made under a variety of weather conditions.												955,962 968	608
England	U. of Bradford	ATS-6	Precipitation attenuation at 20 GHz is measured and is compared with attenuation prediction using a range-gated, fixed-antenna 9.4GHz radar. Over 900 hours of time were logged until 20 GHz beacon failed on 7/9/76.												956,964	608

WAVE PROPAGATION (CONT'D)

LOCATION	AGENCY OR SPONSOR	SAT.	DESCRIPTION	TIME FRAME												UD ACC. NO.	EXP. NO.
				69	70	71	72	73	74	75	76	77	78	79			
			<u>MILLIMETER WAVES (CONT'D)</u>														
Germany	Deutsche Bundespost Res. Inst.	ATS-6	Attenuation data of a 11.4 GHz radio-meter is compared to 30 GHz sat. measurements taken at Leekeln. Polarization of 30 GHz signal was measured.												957 961,970	608	
England	Post Office Res. Center	ATS-6	Simultaneous 20 and 30 GHz at- tenuation measurements were made. As sat. drifted westward, increasing scintillation and multipath effects become apparent.												959,961	608	
England	SRC Apple- ton Lab	ATS-6	Slant-path attenuation of 30 GHz signal were made in conjunction with a three-site space-diversity network. Measurement was also made of the depolarization of the sat. signal.												960,965	608	
England	Post Office Res. Center	ATS-6	The 20 and 30 GHz transmissions from ATS-6 were used to calibrate co- located, small aperature radiometers directed along a 22.7° slant-path.												966	608	
Spain	CTHE	ATS-6	Collected data on attenuation of 13 and 18 GHz frequencies due to rain. 13 meter antenna.												967	608	
England	Post Office Res. Center	ATS-6	20 and 30 GHz frequencies were used to obtain radiation pattern measure- ments of the 6.1 m offset Cassegrain antenna at Martlesham Heath.												969,971	608	
Waltham, Mass.	GSFC	CTS	Attenuation and degradation due to absorption and scattering induced by precipitation.												780	CTS-1	
Canada	CRC	ATS-6	Measurement of sea scatter on VHF and L-band signals and signal fading at C-band and MMW for very low elevation angles.												See U.F. 2-010	657	

WAVE PROPAGATION (CONT'D)

LOCATION	AGENCY OR SPONSOR	SAT.	DESCRIPTION	TIME FRAME												UD ACC. NO.	EXP. NO.
				69	70	71	72	73	74	75	76	77	78	79			
South Pacific U.S.	MSFN Network	ATS-3	<u>VHF</u> VHF propagation studies were conducted. Rosman and Mojave transmitted signals and MSFN Canary and Ascension received and recorded propagation.			■										231	
Peru	Westinghouse NASA/GSFC	ATS-5	Simultaneous observations of ionospheric fading of 1550-MHz and 136-MHz radiowaves were recorded at the geomagnetic equator at Ancon, Peru.			■									992,993		
California	UCLA	ATS-3	VHF signals from ATS-3 were monitored to show physics students how the phase of the signal is related to fluctuations in the ionosphere.				■									283	
Massachusetts	AFCRL	ATS-6	A VHF lunar radar was used to determine the amount of Faraday polarization twist of VHF radio waves. Measurements were made when sat. was between earth and the moon.							■					918		
U.S., Europe	NOAA	ATS-6	<u>UHF</u> The Radio Beacon Exp. 40-360MHz phase-coherent cont. waves are recorded at a number of ground stations to provide a measure of total columnar electron content from sat. to ground.							■	■	■	■	■	590,766 895,910	606	
Midwest U.S.	DOC/OT	ATS-6	An experiment to determine the attenuation of 860, 1550, and 2569 MHz radio signals penetrating to the inside of a typical house.							■					984		
Northeast U.S.	AF Geophysical Labs	ATS-6	40 and 360 MHz coherent signals during 13 consecutive days of active scintillation in November 1974 were analyzed to determine the ionospheric interactions.							■					882		
Iceland	HRL NADC	ATS-6	Transmissions at 360 MHz were received at Keflavik, Iceland. Data were analyzed to determine amplitude scintillation caused by low-elevation and high altitude.										■		873		

SECTION 3

BIBLIOGRAPHY

An extremely important part of this report is the compilation of a bibliography of reports pertinent to the ATS/CTS programs. To acquire this bibliography many searches were made of various data bases such as NTIS and NASA. In addition, letters were written to known experimenters requesting help in both identifying and acquiring relevant reports. As each report was received it was given an accession number which along with other bibliographic information was key punched so that a listing of the bibliography could be made in different ways.

The bibliography of each report contains the accession number, author, title of report, date, performing organization, and type of report. Two listings of the bibliography appear in this section, one ordered by accession number and the other ordered by author.

In addition to extracting the bibliographic data some of the reports were abstracted. These abstracts are printed out in Volume IV of this report.

SECTION 3.1
REPORTS ORDERED BY ACCESSION NUMBER

- 1 NASA/GODDARD SPACE FLIGHT CENTER
"APPLICATIONS TECHNOLOGY SATELLITES: A CONTINUING BIBLIOGRAPHY WITH INDEXES (NASA)." MAR 1972, NASA, GODDARD SPACE FLIGHT CENTER, BIBLIOGRAPHY, NASA-TM-X-65871.
- 2 HANAS, O.J.; ILLIKAINEN, M.E.; KRATZER, D.L.; SPAANS, E.A.; APPLIED INFORMATION INDUSTRIES
"L-BAND ATS-5-ORION-S.S. MANHATTAN MARINE NAVIGATION AND COMMUNICATION EXPERIMENT." JUN 1970, APPLIED INFORMATION INDUSTRIES, MOORESTOWN, N.J., FINAL TECH. REPT., CONTRACT NO. NAS 12-2260, (NASA, ELECTRONIC RESEARCH CENTER, CAMBRIDGE, MASSACHUSETTS).
- 3 GARCIA, M.M.; EGCG; PICAPOSTE OPERATION
"TEST PLAN FOR A SATELLITE COMMUNICATIONS NETWORK TO SUPPORT LASL'S FALL ROCKET PROGRAM IN THE PACIFIC AREA." AUG 1972, EGCG, ALBUQUERQUE DIVISION, DESCRIPTION OF PLANNED EXPERIMENT, OPERATION PICAPOSTE.
- 4 SMITH, W.S.; NASA/GODDARD SPACE FLIGHT CENTER
"APPLICATION FOR USE OF ATS-1 FOR COMMUNICATION AMONG SOVIET AND U.S. SHIPS AND AIRCRAFT IN STUDYING ATMOSPHERIC, SEA, AND ICE CONDITIONS IN THE BERING SEA AREA." JAN 1973, NASA, GODDARD SPACE FLIGHT CENTER, LABORATORY FOR METEOROLOGY & EARTH SCIENCES, APPLICATION FOR USE OF ATS SATELLITE.
- 5 KELLER, C.H.; NASA/AMES RESEARCH CENTER, SPACECRAFT DATA SYSTEMS BRANCH
"ATS-1 COMPUTER COMMUNICATIONS EXPERIMENT." 1971, NASA, AMES RESEARCH CENTER, SPACECRAFT DATA SYSTEMS BRANCH, MOFFETT FIELD, CALIFORNIA; DESCRIPTION OF PLANNED EXPERIMENT.
- 6 KLEPPE, J.A.; UNIVERSITY OF NEVADA, SEEKSTORM PROJECT
"PROPOSAL FOR STUDYING CARRIER SHIFT TECHNIQUES AND INCREASING MAXIMUM DATA TRANSMISSION RATE THROUGH ATS-3 VHF TRANSPONDERS FOR A MOBILE WEATHER MODIFICATION SYSTEM." JAN 1972, UNIVERSITY OF NEVADA, DEPT. OF ELECTRICAL ENGINEERING, PROPOSAL.
- 7 KLEPPE, J.A.; UNIVERSITY OF NEVADA; PROJECT SEEKSTORM
"TRANSMISSION OF HURRICANE RADAR DATA VIA ATS-3." DEC 1971, UNIVERSITY OF NEVADA, DEPT. OF ELECTRICAL ENGINEERING, PROPOSAL.
- * 8 WONG, A.Y.; UNIVERSITY OF CALIFORNIA, LOS ANGELES; UCLA
"APPLICATION FOR USE OF ATS-3 TRANSPONDER TO DIAGNOSE WAVE EXCITATION PROCESSES IN THE IONOSPHERE." SEP 1974, UNIVERSITY OF CALIFORNIA, LOS ANGELES, DEPT. OF PHYSICS, APPLICATION FOR USE OF ATS SATELLITE.
- 9 CLAYTON, W.H.; TEXAS A&M UNIVERSITY
"APPLICATION FOR USE OF ATS-VHF STATION ON BOARD THE T/V TEXAS CLIPPER." MAR 1974, TEXAS A&M UNIVERSITY, MOODY COLLEGE OF MARINE SCIENCES AND MARITIME RESOURCES, APPLICATION FOR USE OF ATS SATELLITE.
- 10 C.C.I.P. STUDY GROUPS
"TECHNICAL CHARACTERISTICS OF SYSTEMS (VHF) PROVIDING COMMUNICATION AND/OR RADIO DETERMINATION USING SATELLITE TECHNIQUES FOR AIRCRAFT AND/OR SHIPS." APR 1972, C.C.I.P. STUDY GROUPS, ANNAPOLIS, MARYLAND, PROGRESS REPT. DCC. 8/139E.

*Abstract not in Volume 4.

- 11 LISTER HILL CENTER FOR BIOMEDICAL COMMUNICATIONS
"THE LISTER HILL CENTER'S EXPERIMENTAL SATELLITE COMMUNICATIONS PROJECT," 1971, NATIONAL LIBRARY OF MEDICINE, LISTER HILL CENTER FOR BIOMEDICAL COMMUNICATIONS, DESCRIPTION OF PLANNED EXPERIMENT ON HEALTH CARE IN ALASKA.
- 12 BYSTRUM, J.W.; NOSE, K.; COSTA, A.; UNIVERSITY OF HAWAII
"SECOND INTERIM REPORT TO THE NATIONAL AERONAUTICS AND SPACE ADMINISTRATION FROM THE UNIVERSITY OF HAWAII," FEB 1972, THE UNIVERSITY OF HAWAII, PAN PACIFIC EDUCATION AND COMMUNICATION EXPERIMENTS BY SATELLITES (PEACESAT PROJECT), PROG. REPT.
- 13 PETRY, C.A.; AERONAUTICAL RADIO, INC.
"NASA ATS VHF EXPERIMENT: AIRINC/AIRLINES SATCOM PROGRAM--REPORT OF VHF SATELLITE COMMUNICATIONS TRIALS WITH THE BOEING 747 AIRCRAFT," 1970, AERONAUTICAL RADIO, INC. (AIRINC) ANNAPOLIS, MARYLAND, WITH BOEING AIRCRAFT CO., GENERAL ELECTRIC CO., HUGHES AIRCRAFT CO., AEROSPACE GROUP, AND PAN AMERICAN WORLD AIRWAYS, TECH. REPT.
- 14 NEED, W.L.; BYKOWSKI, R.F.; PROJECT SEARCH
"EXPERIMENTAL PLAN FOR THE INVESTIGATION OF SATELLITE COMMUNICATION UTILITY FOR LAW ENFORCEMENT FACSIMILE AND DATA TRANSMISSION," OCT 1971, PROJECT SEARCH, CALIFORNIA CRIME TECHNOLOGICAL RESEARCH FOUNDATION, SACRAMENTO, CALIFORNIA, DESCRIPTION OF PLANNED EXPERIMENT SUBCOMMITTEE ON FEASIBILITY OF SATELLITE COMMUNICATIONS FOR SEARCH.
- 15 LAROSA, P.H.; ANDERSON, R.E.; HOFFMAN, H.; EXXON CORPORATION; GENERAL ELECTRIC COMPANY
"AN EXPERIMENT WITH MARITIME SATELLITE MULTIMODE COMMUNICATIONS AND POSITION FIXING," JUL 1973- FEB 1974, EXXON CORPORATION AND GENERAL ELECTRIC COMPANY, TECH. REPT.
- 16 LESTER, R.G.; D'FOGHLUOMA, F.; DUKE UNIVERSITY MEDICAL CENTER
"DRAFT PROPOSAL FOR COLLABORATIVE STUDY OF X-RAY IMAGE TRANSMISSION," AUG 1971, DUKE UNIVERSITY MEDICAL CENTER, DURHAM, N.C., PROPOSAL.
- 17 PONNAPPA, P.C.; SERGHINI, S.M.; COMMUNICATIONS RESEARCH CENTRE (CANADA)
"HIGH LATITUDE SCINTILLATION MEASUREMENTS AT L-BAND AND VHF: PRELIMINARY REPORT," APR 1972, COMMUNICATIONS RESEARCH CENTRE, TELECOMMUNICATIONS AND ELECTRONICS BRANCH (CANADA), PRELIMINARY TECH. REPT.
- * 18 JOHNS HOPKINS UNIVERSITY
"PRECISE TIME DISSEMINATION EXPERIMENT (PTDE): PHASE ONE TEST PLAN," JAN 1974, THE JOHNS HOPKINS UNIVERSITY, APPLIED PHYSICS LABORATORY, DESC. OF PLAN. EXP. NO. CSC-2-231.
- 19 HANSON, D.W.; HAMILTON, W.F.; GATTERER, L.E.; NATIONAL BUREAU OF STANDARDS
; PRECISE TIME AND TIME INTERVAL STRATEGIC PLANNING MEETING (3RD ANNUAL).
"THE NBS FREQUENCY AND TIME SATELLITE EXPERIMENT USING ATS-3," NOV 1971, NATIONAL BUREAU OF STANDARDS, FREQUENCY AND TIME DISSEMINATION RESEARCH STATION, BOULDER, COLORADO, PART OF THE PROCEEDINGS OF THE THIRD ANNUAL DEPARTMENT OF DEFENSE PRECISE TIME AND TIME INTERVAL (PTTI) STRATEGIC PLANNING MEETING.

*Abstract not in Volume 4.

- 20 GARCIA, M.M.; EG&G
"AIRBORNE SATELLITE COMMUNICATIONS DURING AURORAL STUDIES." APR 1971, EG&G, ALBUQUERQUE DIVISION, SERVICES AND SYSTEMS GROUP TECH. REPT. EGG 1183-3011 (AL-564), CONTRACT NO. AT (29-1)-1183.
- 21 GARCIA, M.M.
"AIRBORNE SATELLITE COMMUNICATIONS DURING AURORAL STUDIES" JAN 1972, EG&G, IN C. ALBUQUERQUE DIVISION, SERVICE AND SYSTEMS GROUP, ALBUQUERQUE, NEW MEXICO, TECHNICAL REPORT, AL-726, EG&G 1183-3017.
- 22 BERMAN, J.A.; APPLIED INFORMATION INDUSTRIES
"MARITIME SATELLITE NAVIGATION/COMMUNICATION PROGRAM; PHASE II-EXPERIMENT SYSTEM DEVELOPMENT AND OPERATION. MARITIME SHIPPING USER PLAN." JUN 1972, APPLIED INFORMATION INDUSTRIES, MOORESTOWN, N.J. TECH. REPT. MAR-594-M-004 (A) FOR U.S. DEPARTMENT OF COMMERCE, MARITIME ADMINISTRATION.
- 23 ANDERSON, R.E.; GENERAL ELECTRIC COMPANY
"VHF RANGING AND POSITION FIXING EXPERIMENT USING ATS SATELLITES: FINAL REPORT ON PHASES 1 AND 2." NOV 1968- MAY 1971, GENERAL ELECTRIC COMPANY, TECH. REPT. S-71-1109 CONTRACT NO. NAS5-11634 (GODDARD SPACE FLIGHT CENTER).
- 24 BARNES, J.H.; NASA, INTERNATIONAL PLANNING AND PROGRAMS
"PROPOSAL FOR COOPERATIVE ARRANGEMENT BETWEEN KASHIMA RADIO RESEARCH LABS (JAPAN) AND GODDARD SPACE FLIGHT CENTER (NASA) FOR ATS-1 OPERATIONS." JAN 1974, NASA, GODDARD SPACE FLIGHT CENTER, INTERNATIONAL PLANNING AND PROGRAMS, LETTER PROPOSAL TO KASHIMA RADIO RESEARCH LABS, TOKYO, JAPAN.
- 25 LUSIGNAN, B.B.; STANFORD UNIVERSITY; COMISSAO NACIONAL DE ATIVIDADES ESPACIAIS (CNAE)
"A JOINT PROPOSAL FOR AN ATS SATELLITE CIRCUIT BETWEEN STANFORD UNIVERSITY AND COMISSAO NACIONAL DE ATIVIDADES ESPACIAIS (CNAE), BRAZIL." DEC 1969, STANFORD UNIVERSITY, PROPOSAL RL 13-69.
- 26 KAISER, R.L.; ATOMIC ENERGY COMMISSION
"ATS-1 REPORT--AMCHITKA ISLAND, ALASKA." SEP 1974, U.S. ATOMIC ENERGY COMMISSION, NEVADA OPERATIONS OFFICE, LAS VEGAS, NEVADA, TECH. REPT. (LETTER REPORT).
- 28 MATHEWS, C.W.; NASA, WASHINGTON, D.C.
"OPPORTUNITIES FOR PARTICIPATION IN SPACE FLIGHT INVESTIGATIONS WITH THE COMMUNICATIONS TECHNOLOGY SATELLITE (CTS)." AUG 1972, NASA, WASHINGTON, D.C., CODE ESC, REQUEST FOR PROPOSAL NHB 8030.1A.
- 29 HAGEN, B; JAHN, D; STRUMME, J; SVERHOLT, K; ROYAL NORWEGIAN COUNCIL FOR SCIENTIFIC AND INDUSTRIAL RESEARCH (NTNF)
"SCOMB-1: A SATELLITE COMMUNICATION OCEANOGRAPHIC AND METEOROLOGICAL BODY." FEB 1971, ROYAL NORWEGIAN COUNCIL FOR SCIENTIFIC AND INDUSTRIAL RESEARCH (NTNF), SPACE ACTIVITY DIVISION, OSLO, TECH. REPT.
- 30 SNELL, N.M.; ATOMIC ENERGY COMMISSION; COTINGA PROJECT
"APPLICATION FOR USE OF ATS-1 SATELLITE TO SUPPORT PROJECT COTINGA." JAN 1974, ATOMIC ENERGY COMMISSION, WASHINGTON, D.C. APPLICATION FOR USE OF ATS SATELLITE.
- 31 KIVIK, J.; TELESAT CANADA
"ATS-1 TEST PROGRAM WITH TELESAT CANADA." OCT 1972, TELESAT CANADA, OTTAWA, ONTARIO TECH. REPT.

- 32 RAMASASTRY, J.; ROSENBAUM B.; MICHELINI, R.D.; KUEGLER, G.
"VLBI CLOCK SYNCHRONIZATION TESTS PERFORMED VIA THE ATS-1 & ATS-3 SATELLITES." DEC 1971, NASA, GODDARD SPACE FLIGHT CENTER, BIBLIOGRAPHY, NASA-TM-X-65871.
- 33 MARCONI COMPANY; UNIVERSITY COLLEGE OF SWANSEA; POST OFFICE (UNITED KINGDOM)
"UNITED KINGDOM MARITIME SATELLITE COMMUNICATION TESTS." AUG- DEC 1970, POST OFFICE (UNITED KINGDOM); UNIVERSITY COLLEGE OF SWANSEA; THE MARCONI COMPANY; SHIP "ATLANTIC CAUSEWAY"; TECH. REPT.
- 34 BUCK, C.L.; NORTHRIP, C.M.; STATE OF ALASKA
"REPORT ON ALASKA USE OF ATS-1 SATELLITE." OCT 1972- JUNE 1973, STATE OF ALASKA, OFFICE OF TELECOMMUNICATIONS, PROG. REPT.
- 35 CHI, A.R.
"PRECISE TIME DISSEMINATION EXPERIMENT." JUL 1974, GSFC PROGRESS REPT., PROJECT NO. 636-18-51-08.
- 36 KASHIMA EARTH STATION; JAPAN MINISTRY OF POSTS AND TELECOMMUNICATIONS
"SATELLITE COMMUNICATION EXPERIMENTS VIA ATS-1." APR 1970- AUG 1973, TECH. REPT. KASHIMA EARTH STATION, RADIO RESEARCH LABS., MINISTRY OF POSTS AND TELECOMMUNICATIONS, JAPAN.
- 37 ANDERSON, R.E.; GENERAL ELECTRIC CO.
"FINAL REPORT ON PHASE 3 ATS RANGING AND POSITION FIXING EXPERIMENT." MAR 1971- DEC 1972, GENERAL ELECTRIC CO., TECH. REPT. SRD-73-062, GSFC CONTRACT NAS5-11634.
- 38 ROTH, E.J.; CORPORATION FOR PUBLIC BROADCASTING
"TRANSCONTINENTAL INTERCONNECTION EXPERIMENT." NOV 1970, CORPORATION FOR PUBLIC BROADCASTING TECH. REPT. FORD FOUNDATION GRANT.
- 39 BARNILA, J.D. ; WESTWOOD, D.H.; HANAS, D.J.; USAF SPACE AND MISSILE SYSTEMS ORGANIZATION (SAMSQ) LOS ANGELES, CA
"SYSTEM 6218/ATS-5 SIGNAL DEMONSTRATION TEST: FINAL TECHNICAL REPORT." FEB 1971, SPACE AND MISSILE SYSTEMS ORGANIZATION, SAMSQ-TR-71-35, CONTRACT NO. FO4701-70-C-0281.
- 40 ALLAN, D.S.; STANFORD UNIVERSITY
"MEDICAL TELECOMMUNICATIONS EXPERIMENTS FOR ALASKA VIA SATELLITE: A SUMMARY OF HARDWARE EXPERIMENTS AND A CATALOG OF TERMINAL EQUIPMENT." MARCH 1973, STANFORD UNIVERSITY, STANFORD, CALIFORNIA, TECH. REPT., CONTRACT NO. NIH-4718 (LISTER HILL NATIONAL CENTER FOR BIOMEDICAL COMMUNICATION, NATIONAL LIBRARY OF MEDICINE, NATIONAL INSTITUTES OF HEALTH).
- *41 KELLEHER, J.J.; NATIONAL SCIENTIFIC LABORATORIES, INC.
"COMPILATION OF REPORT SUMMARIES OF ATS SATELLITE EXPERIMENTS IN SEVERAL APPLICATION AREAS." SEP 1972, NATIONAL SCIENTIFIC LABORATORIES, INC., MCLEAN, VIRGINIA, BIBLIOGRAPHY.
- 42 TELCOM, INC.
"SATELLITE COMMUNICATIONS DURING OPERATION PICAPOSTE." FEB 1973, TELCOM, INC., LAS VEGAS, NEVADA, TECH. REPT. TNR-323-078 (U.S. ATOMIC ENERGY COMMISSION, NEVADA OPERATIONS OFFICE, LAS VEGAS, NEVADA).

*Abstract not in Volume 4.

- 43 STANLEY, G.M.; UNIVERSITY OF ALASKA
"SUMMARIES OF USE OF ATS-1 FOR MEDICAL PURPOSES." JUL-DEC 1973, UNIVERSITY OF ALASKA, GEOPHYSICAL INSTITUTE, COLLEGE, ALASKA.
- 44 KLEPPE, J.A.; SIERRA RESEARCH ENVIRONMENTAL LABORATORY; PROJECT SEEKSTORM; UNIVERSITY OF NEVADA
"AN EXPERIMENTAL STUDY OF DIGITAL DATA TRANSMISSION USING ATS SATELLITE VHF TRANSPONDERS: VHF SEEK." JUN 1972, SIERRA RESEARCH ENVIRONMENTAL LAB., BOULDER, COLORADO, UNIVERSITY OF NEVADA, TECH. REPT. PROJECT SEEKSTORM.
- 45 STANFORD UNIVERSITY; NASA/GODDARD SPACE FLIGHT CENTER, OFFICE OF SPACE SCIENCE AND APPLICATION
"DEMONSTRATION OF SATELLITE DISTRIBUTION OF COMPUTER-ASSISTED INSTRUCTION FOR RURAL SCHOOLS." MAY 1971- JUN 1972, STANFORD UNIVERSITY, INSTITUTE FOR MATHEMATICAL STUDIES IN THE SOCIAL SCIENCES FINAL TECH. REPT. PROJECT CODE 460.
- 46 QUAYLE, D.R.; NATIONAL PUBLIC RADIO, INC.
"A REPORT TO NASA ON EXPERIMENTAL USE OF ATS-1 BY NATIONAL PUBLIC RADIO, INC." OCT 1972, TECH. REPT., NATIONAL PUBLIC RADIO, INC, WASHINGTON, D.C.
- 47 HANSON, D.W.; HAMILTON, W.F.; NATIONAL BUREAU OF STANDARDS.
"TIME AND FREQUENCY BROADCAST EXPERIMENTS FROM THE ATS-3 SATELLITE." NOV 1973, NATIONAL BUREAU OF STANDARDS, TIME AND FREQUENCY DIVISION, INSTITUTE FOR BASIC STANDARDS, BOULDER, COLORADO, TECH. REPT. NO. 645, (U.S. DEPT. OF COMMERCE).
- 48 NETHERLANDS PTT; RADIO HOLLAND
"REPORT ON COMMUNICATIONS TESTS AMONG MOJAVE (NASA), KOOTWIJK (NETHERLANDS) AND TWO SHIPS NIEUW AMSTERDAM AND ATLANTIC CROWN USING ATS-3 SATELLITE." FEB 1971, NETHERLANDS PTT, TECH. REPT.
- 49 PARKER, W.B.
"VILLAGE SATELLITE II: THE SECOND EVALUATION OF SOME EDUCATIONAL USES OF ATS-1 SATELLITE EDUCATIONAL BROADCASTING IN ALASKA." JUL 1973, TECH. REPT. (ANCHORAGE, ALASKA).
- 50 ABRAMSON, N.; UNIVERSITY OF HAWAII; ALOHA SYSTEM
"THE ALOHA SYSTEM." JAN 1972, UNIVERSITY OF HAWAII TECH. REPT. 872-1.
- 51 ABRAMSON, N.; UNIVERSITY OF HAWAII; ALOHA SYSTEM
"PACKET SWITCHING WITH SATELLITES." MAR 1973, UNIVERSITY OF HAWAII TECH. REPT. 873-2.
- 52 KREIMER, D.; HUDSON, H.E.; FOOTE, D.R.; STANFORD UNIVERSITY
"HEALTH CARE AND SATELLITE RADIO COMMUNICATION IN VILLAGE ALASKA: FINAL REPORT OF THE ATS-1 BIOMEDICAL SATELLITE, EXPERIMENT EVALUATION." JUN 1974, NATIONAL CENTER FOR BIOMEDICAL COMMUNICATION, TECH. REPT. CONTRACT NO1-LM-1-4718.
- 53 BYSTROM, J.W.; PEACESAT
"THE PEACESAT PROJECT." 1972, PEACESAT, UNIVERSITY OF HAWAII, HONOLULU, HAWAII.
- 54 BRADY, C.; UNKNOWN
"ALASKA COMMUNICATIONS." MAR 1975, UNKNOWN.

- 55 O'DOGLIO, F.; DUKE UNIVERSITY MEDICAL CENTER
"PRELIMINARY EVALUATION OF THE RESULTS OBTAINED DURING THE X-RAY TRANSMISSION EXPERIMENT." JAN 1972, DUKE UNIVERSITY MEDICAL CENTER, RADIATION PHYSICS DIVISION, DURHAM, NORTH CAROLINA, CORRESPONDENCE, (NASA/GSFC) TECHNICAL UTILIZATION PROGRAM.
- 56 RADIO RESEARCH LABORATORIES
"STATUS AND FUTURE PLANS OF KASHIMA GROUND STATION." JAN 1971, RADIO RESEARCH LABORATORIES, JAPAN, PROGRESS REPORT, (MINISTRY OF POSTS AND TELECOMMUNICATIONS).
- 57 APPLIED INFORMATION INDUSTRIES
"SYSTEM DESIGN PLAN MARITIME SATELLITE NAVIGATION/COMMUNICATION PROGRAM: PHASE II--EXPERIMENT SYSTEM DEVELOPMENT AND OPERATION." DEC 1971, APPLIED INFORMATION INDUSTRIES, HUNTSVILLE, N.J. TECH. REPT. CONTRACT NO. 1-35544 (U.S. DEPARTMENT OF COMMERCE, MARITIME ADMINISTRATION).
- 58 SAVAGE, D.C.; PADEL, S.H.; BRITISH BROADCASTING CORPORATION
"PERFORMANCE OF MEXICO CITY-LONDON TELEVISION CHAIN USED FOR THE 1968 OLYMPICS." 1968, BRITISH BROADCASTING CORPORATION, ENGINEERING DIVISION, TECH. MEMO, DESIGNS DEPARTMENT TECHNICAL MEMORANDUM NO. 6,81(68).
- * 59 REYNOLDS, D.W.; VONDER HAAR, T.H.; COLORADO STATE UNIVERSITY
"A COMPARISON OF RADAR-DETERMINED CLOUD HEIGHT AND REFLECTED SOLAR RADIANCE MEASURED FROM THE GEOSYNCHRONOUS SATELLITE ATS-3." APR 1973, COLORADO STATE UNIVERSITY, DEPT. OF ATMOSPHERIC SCIENCE, FT. COLLINS, COLORADO, JOURNAL ARTICLE, *** JOURNAL OF APPLIED METEOROLOGY, VOL. 12, PP. 1082-1085, SEP 1973 ***.
- * 60 WHITE, S.C.; NASA, SCIENTIFIC ACTIVITIES FOR LIFE SCIENCES.
"COMMENTS ON PROPOSAL FOR THE CONTINUED USE OF NASA ATS-1 SATELLITE FOR ALASKA." MAY 1973, NASA MM-1, SCIENTIFIC ACTIVITIES FOR LIFE SCIENCES, PROPOSAL EVALUATION.
- 61 BUCK, C.L.; NORTHRIP, C.M.; STATE OF ALASKA, OFFICE OF THE GOVERNOR
"REPORT ON ALASKA USE OF THE ATS-1 SATELLITE." MAY 1973, STATE OF ALASKA, OFFICE OF THE GOVERNOR, OFFICE OF TELECOMMUNICATIONS TECH. REPT.
- 62 BUCK, C.L.; NORTHRIP, C.M.; STATE OF ALASKA, OFFICE OF THE GOVERNOR
"PROPOSAL FOR THE CONTINUED USE OF NASA'S ATS-1 SATELLITE FOR ALASKA." MAY 1973, STATE OF ALASKA, GOVERNOR'S OFFICE, OFFICE OF TELECOMMUNICATIONS, PROPOSAL.
- * 63 KLEPPE, J.A.; UNIVERSITY OF NEVADA
"TECHNICAL SYSTEMS FOR THE PYRAMID PILOT PROJECT." 1972, UNIVERSITY OF NEVADA, DESERT RESEARCH INSTITUTE, TECH. REPT.
- * 64 BYSTROM, J.W.; UNIVERSITY OF HAWAII
"PEACESAT: CONTINUATION PROPOSAL." OCTOBER 1973, UNIVERSITY OF HAWAII, HONOLULU, PROPOSAL, (LISTER HILL NATIONAL CENTER FOR BIOMEDICAL COMMUNICATIONS, NATIONAL LIBRARY OF MEDICINE).
- * 65 BYSTROM, J.W.; UNIVERSITY OF HAWAII
"PEACESAT PRESS RELEASE KIT." OCTOBER 1973, UNIVERSITY OF HAWAII, HONOLULU, NEWSPAPER ARTICLE, (LISTER HILL NATIONAL CENTER FOR BIOMEDICAL COMMUNICATIONS, NATIONAL LIBRARY OF MEDICINE).

*Abstract not in Volume 4.

- 66 BYSTROM, J.W.; MISKO, C.; UNIVERSITY OF HAWAII
"SUPPLEMENTAL EVALUATION REPORT: PAN PACIFIC EDUCATION AND COMMUNICATION EXPERIMENTS BY SATELLITE--VOL I." AUG 1973, UNIVERSITY OF HAWAII, HONOLULU, PROGRESS REPORT, (LISTER HILL NATIONAL CENTER FOR BIOMEDICAL COMMUNICATIONS, NATIONAL LIBRARY OF MEDICINE).
- 67 BYSTROM, J.W.; MISKO, C.; UNIVERSITY OF HAWAII
"SUPPLEMENTAL EVALUATION REPORT: PAN PACIFIC EDUCATION AND COMMUNICATION EXPERIMENTS BY SATELLITE--VOL II." AUG 1973, UNIVERSITY OF HAWAII, HONOLULU, PROGRESS REPORT, (LISTER HILL NATIONAL CENTER FOR BIOMEDICAL COMMUNICATIONS, NATIONAL LIBRARY OF MEDICINE).
- 68 BYSTROM, J.W.; UNIVERSITY OF HAWAII
"PACIFIC SATELLITE HEALTH INFORMATION STUDY--FINAL REPORT." MAY 1974, UNIVERSITY OF HAWAII, HONOLULU, FINAL TECH. REPORT., CONTRACT NO. NIH-72-4706, (LISTER HILL NATIONAL CENTER FOR BIOMEDICAL COMMUNICATIONS, NATIONAL LIBRARY OF MEDICINE).
- *69 GARY, D.C.; POTEAT, K.O.; NESS SATELLITE FIELD SERVICES STATION
"ATS-3 SATELLITE-DERIVED LOW-LEVEL WINDS: A PROVISIONAL CLIMATOLOGY." MAR 1973, NESS SATELLITE FIELD SERVICES STATION, MIAMI, FLORIDA, JOURNAL ARTICLE, *** JOURNAL OF APPLIED METEOROLOGY VOL 12, PP 1054-1061, SEP 1973 **.
- *70 STAHN, A.J.; VONDER HAAR, T.H.; UNIVERSITY OF WISCONSIN
"A STUDY OF CLOUD DISTRIBUTIONS USING REFLECTED RADIANCE MEASUREMENTS FROM THE ATS SATELLITES." JAN 1970, UNIVERSITY OF WISCONSIN, SPACE SCIENCE & ENGINEERING CENTER, MADISON, WISCONSIN, JOURNAL ARTICLE, *** JOURNAL OF APPLIED METEOROLOGY VOL 9, PP 498-507, JUN 1970 ***.
- 71 LEESE, J.A.; NOVAK, C.S.; NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION (NOAA)
"AN AUTOMATED TECHNIQUE FOR OBTAINING CLOUD MOTION FROM GEOSYNCHRONOUS SATELLITE DATA USING CROSS CORRELATION." JUN 1970, NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION (NOAA), NATIONAL ENVIRONMENTAL SATELLITE CENTER, JOURNAL ARTICLE, *** JOURNAL OF APPLIED METEOROLOGY, VOL 10, PP 118-132, FEB 1971 ***.
- *72 DILLON, C.H.; UNIVERSITY OF MARYLAND
"BOOK REVIEW OF 'THE POLITICS AND TECHNOLOGY OF SATELLITE COMMUNICATIONS' BY GALLOWAY, J.F. (LEXINGTON BOOKS, 1972)." NOV 1973, UNIVERSITY OF MARYLAND, JOURNAL ARTICLE *** THE JOURNAL OF POLITICS, VOL. 35, NO. 4, PP. 1035-1036, NOV 1973 ***.
- *73 SCHILLER, H.I.; UNIVERSITY OF CALIFORNIA
"BOOK REVIEW OF 'THE POLITICS AND TECHNOLOGY OF SATELLITE COMMUNICATIONS.' BY GALLOWAY, J.F. (D.C. HEATH CO. 1972)." JUL 1973, UNIVERSITY OF CALIFORNIA, SAN DIEGO, JOURNAL ARTICLE *** JOURNALISM QUARTERLY, VOL. 50, NO. 2, PP. 390-391, VOL. 1973 ***.
- *74 FINCH, E.R.
"THE UNITED NATIONS AND EARTH RESOURCES SATELLITE." JAN 1973, JOURNAL ARTICLE *** INTERNATIONAL LAWYER, VOL. 7, NO. 1, PP. 158-176, JAN 1973***.

*Abstract not in Volume 4.

- *75 MURPHY, T.P.; UNIVERSITY OF MARYLAND
"FEDERAL REGULATORY POLICY AND COMMUNICATIONS SATELLITES: INVESTING THE SOCIAL DIVIDEND." OCT 1972, UNIVERSITY OF MARYLAND, COLLEGE PARK, MARYLAND, JOURNAL ARTICLE *** THE AMERICAN JOURNAL OF ECONOMICS AND SOCIOLOGY, VOL. 31, NO. 4, PP. 337-351, OCT 1972.
- *76 MUPE, H.H.; DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE
"AN EDUCATION SATELLITE: COSTS AND EFFECTS ON THE EDUCATIONAL SYSTEM." OCT 1974, DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE, OFFICE OF TELECOMMUNICATIONS POLICY, TELECOMMUNICATIONS MARKET DEVELOPMENT, JOURNAL ARTICLE ** EDUCATIONAL TECHNOLOGY, VOL. 14, NO. 10, PP 48-52, OCT 1974 ***.
- *77 POLCYN, K.A.; INFORMATION SCIENCES COMPANY
"FUTURE UNITED STATES EDUCATIONAL BROADCAST SATELLITE EXPERIMENTS: THE APPALACHIAN REGION EXPERIMENT." MAY 1974, INFORMATION SCIENCES COMPANY, PLANNING RESEARCH CORPORATION. COMMUNICATION SATELLITE APPLICATIONS, MCLEAN, VIRGINIA, JOURNAL ARTICLE *** EDUCATION TECHNOLOGY, VOL. 14, NO. 5, PP 8-12, MAY 1974.
- *78 PAPAY, J.P.; POLCYN, K.A.; ACADEMY FOR EDUCATIONAL DEVELOPMENT, INC.
"THE EDUCATIONAL POTENTIAL OF BROADCAST SATELLITE TECHNOLOGY: AN OVERVIEW OF SOME PRESENT AND FUTURE ACTIVITIES." APR 1973, ACADEMY FOR EDUCATIONAL DEVELOPMENT, JOURNAL ARTICLE *** EDUCATIONAL TECHNOLOGY, VOL. 13, NO. 4, PP 39-43, APR 1973.
- *79 POLCYN, K.A.; ACADEMY FOR EDUCATIONAL DEVELOPMENT, INC.
"FUTURE UNITED STATES EDUCATIONAL BROADCAST SATELLITE EXPERIMENTS: THE ROCKY MOUNTAIN REGION EXPERIMENT." AUG 1973, ACADEMY FOR EDUCATIONAL DEVELOPMENT, INC., JOURNAL ARTICLE, (U.S. AGENCY FOR INTERNATIONAL DEVELOPMENT) ** EDUCATIONAL TECHNOLOGY, VOL. 13, NO. 9, PP. 46-52, AUG 1973 ***.
- 80 ENOLICH, R.M.; WOLF, D.E.; HALL, D.J.; BRAIN, A.E.; STANFORD RESEARCH INSTITUTE
"USE OF A PATTERN RECOGNITION TECHNIQUE FOR DETERMINING CLOUD MOTIONS FROM SEQUENCES OF SATELLITE PHOTOGRAPHS." SEP 1970, STANFORD RESEARCH INSTITUTE, MENLO PARK, CALIFORNIA, JOURNAL ARTICLE *** JOURNAL OF APPLIED METEOROLOGY, VOL. 10, NO. 2, PP. 105-117, FEB 1971 ***.
- 81 BOGOTT, F.H.; MOZER, F.S.; UNIVERSITY OF CALIFORNIA
"MAGNETOPAUSE ELECTRIC FIELD INFERRED FROM ENERGETIC PARTICLE MEASUREMENTS ON ATS-5." FEB 1971, UNIVERSITY OF CALIFORNIA, BERKELEY, CALIFORNIA, SPACE SCIENCES LABORATORY, JOURNAL ARTICLE, *** JOURNAL OF GEOPHYSICAL RESEARCH, VOL. 76, NO. 4, PP. 892-899, FEB 1971 ***.
- *82 DAY, J.L.; UNIVERSITY OF KANSAS
"BOOK REVIEW OF (1) 'THE PRACTICE OF MASS COMMUNICATION: SOME LESSONS FROM RESEARCH' BY RAJ, Y.V.L., (UNESCO PUBLICATION 1972); (2) 'A GUIDE TO SATELLITE COMMUNICATION BY UNESCO (UNESCO PUBLICATION 1972); (3) 'THE ROLE OF FILM IN DEVELOPMENT' BY HOPKINSON, P. (UNESCO PUBLICATION 1972)." OCT 1973, UNIVERSITY OF KANSAS, JOURNAL ARTICLE *** JOURNALISM QUARTERLY, VOL. 50, NO. 3, P. 589, OCT 1973 ***.
- 83 CUMMINGS, W.D.; COLEMAN, JR., P.J.; SISONE, G.L.; UCLA
"QUIET DAY MAGNETIC FIELD AT ATS-1." FEB 1971, UNIVERSITY OF CALIFORNIA AT LOS ANGELES, GRAMBLING COLLEGE, LOUISIANA, JOURNAL ARTICLE, *** JOURNAL OF GEOPHYSICAL RESEARCH, VOL. 76, NO. 4, PP. 926-932, FEB 1971 ***.

*Abstract not in Volume 4.

- 84 SKILLMAN, T.L.; SUGIURA, M.; NASA/GODDARD SPACE FLIGHT CENTER
"MAGNETOPAUSE CROSSING OF THE GEOSTATIONARY SATELLITE ATS-3 AT 6.6 RE." J
AN 1971, NASA, GODDARD SPACE FLIGHT CENTER, LABORATORY FOR SPACE PHYSICS,
JOURNAL ARTICLE, *** JOURNAL OF GEOPHYSICAL RESEARCH, VOL. 76, NO. 1, PP.
44-50, FEB 1971 ***.
- 85 COLEMAN, JR., P.J.; CUMMINGS, W.D.; UCLA
"SOMETIME DISTURBANCE FIELDS AT ATS-1," JAN 1971, UNIVERSITY OF CALIFORNIA
AT LOS ANGELES; GRAMBLING COLLEGE, LOUISIANA, JOURNAL ARTICLE, *** JOURNA
L OF GEOPHYSICAL RESEARCH, VOL. 76, NO. 1, PP. 51-62, JAN 1971 ***.
- 86 OLSON, W.P.; CUMMINGS, W.D.; MCDONNELL-DOUGLAS
"COMPARISON OF THE PREDICTED AND OBSERVED MAGNETIC FIELD AT ATS-1." DEC 1
970, MCDONNELL-DOUGLAS ASTRONAUTICS COMPANY-WEST, HUNTINGTON BEACH, CALIFO
RNIA, GRAMBLING COLLEGE, LOUISIANA, JOURNAL ARTICLE, *** JOURNAL OF GEOPHY
SICAL RESEARCH, VOL. 75, NO. 34, PP. 7117-7121, DEC 1970 ***.
- 87 SHARP, R.D.; CARR, D.L.; JOHNSON, R.G.; SHELLEY, E.G.; LOCKHEED PALO ALTO
RESEARCH LABORATORY
"COORDINATED AURORAL-ELECTRON OBSERVATIONS FROM A SYNCHRONOUS AND A POLAR
SATELLITE." NOV 1971, LOCKHEED PALO ALTO RESEARCH LABORATORY, PALO ALTO,
CALIFORNIA, JOURNAL ARTICLE, *** JOURNAL OF GEOPHYSICAL RESEARCH, VOL. 75,
NO. 31, PP. 7669-7682, NOV 1971 ***.
- 88 DEFOREST, S.E.; MCILWAIN, C.E.; UNIVERSITY OF CALIFORNIA AT SAN DIEGO
"PLASMA CLOUDS IN THE MAGNETOSPHERE." JUN 1971, UNIVERSITY OF CALIFORNIA
AT SAN DIEGO, LA JOLLA, CALIFORNIA, JOURNAL ARTICLE, *** JOURNAL OF GEOPHY
SICAL RESEARCH, VOL. 76, NO. 16, PP. 3587-3611, JUN 1971 ***.
- 89 BOGOTT, F.H.; MOZER, F.S.; UNIVERSITY OF CALIFORNIA AT BERKLEY
"EQUATORIAL PROTON AND ELECTRON ANGULAR DISTRIBUTIONS IN THE LOSS CONE AND
AT LARGE ANGLES." OCT 1971, UNIVERSITY OF CALIFORNIA AT BERKLEY, JOURNAL
ARTICLE, *** JOURNAL OF GEOPHYSICAL RESEARCH, VOL. 76, NO. 28, PP. 6790-6
805, OCT 1971 ***.
- 90 PATEL, V.L.; COLEMAN, JR., P.J.; UCLA
"SUDDEN IMPULSES IN THE MAGNETOSPHERE OBSERVED AT SYNCHRONOUS ORBIT." DEC
1970, UNIVERSITY OF CALIFORNIA AT LOS ANGELES, JOURNAL ARTICLE, *** JOURN
AL OF GEOPHYSICAL RESEARCH, VOL. 75, NO. 34, PP. 7255-7260, DEC 1970 ***.
- 91 BYSTROM, J.W.; UNIVERSITY OF HAWAII
"REPORT ON PAN PACIFIC EDUCATION AND COMMUNICATION EXPERIMENTS BY SATELLIT
E PROJECT (PEACESAT) OF THE UNIVERSITY OF HAWAII FOR APRIL 1971-DECEMBER 1
972." MAR 1973, UNIVERSITY OF HAWAII, TECH. REPORT.
- 92 BYSTROM, J.W.; UNIVERSITY OF HAWAII
"REPORT ON PAN PACIFIC EDUCATION AND COMMUNICATION EXPERIMENTS BY SATELLIT
E PROJECT (PEACESAT) OF THE UNIVERSITY OF HAWAII FOR APRIL 1971-DECEMBER 1
972: PART III -- A REQUEST FOR CONTINUING USE OF ATS-1 SATELLITE FOR A PE
RIOD ENDING DECEMBER 1974." MAR 1973, UNIVERSITY OF HAWAII, REQUEST FOR U
SE OF ATS SATELLITE.

- 93 BYSTROM, J.W.; NOSE, K.; YUEN, P.C.; UNIVERSITY OF HAWAII
"REPORT ON PAN PACIFIC EDUCATION AND COMMUNICATION EXPERIMENTS BY SATELLITE PROJECT (PEACESAT) OF THE UNIVERSITY OF HAWAII FOR APRIL 1971 - DECEMBER 1972: ATTACHMENT A -- THE PEACESAT SYSTEM EQUIPMENT." MAR 1973, UNIVERSITY OF HAWAII, TECH. REPT.
- * 94 BYSTROM, J.W.; UNIVERSITY OF HAWAII
"REPORT ON PAN PACIFIC EDUCATION AND COMMUNICATION EXPERIMENTS BY SATELLITE PROJECT (PEACESAT) OF THE UNIVERSITY OF HAWAII FOR APRIL 1971-DECEMBER 1972: ATTACHMENT B -- INDEX OF USERS." MAR 1973, UNIVERSITY OF HAWAII, INDEX OF USERS.
- * 95 BYSTROM, J.W.; UNIVERSITY OF HAWAII
"REPORT ON PAN PACIFIC EDUCATION AND COMMUNICATION EXPERIMENTS BY SATELLITE PROJECT (PEACESAT) OF THE UNIVERSITY OF HAWAII FOR APRIL 1971-DECEMBER 1972: ATTACHMENT C -- PHOTOS." MAR 1973, UNIVERSITY OF HAWAII, NEWSPAPER ARTICLE/PRESS RELEASE.
- 96 BYSTROM, J.W.; UNIVERSITY OF HAWAII
"REPORT ON PAN PACIFIC EDUCATION AND COMMUNICATION EXPERIMENTS BY SATELLITE PROJECT (PEACESAT) OF THE UNIVERSITY OF HAWAII FOR APRIL 1971-DECEMBER 1972: ATTACHMENT D -- PROPOSALS SUMMARIES - NASA, NLH, HSMHA, ATTACHMENT E -- NLH PROPOSAL, ATTACHMENT F -- HSMHA PROPOSAL." MAR 1973, UNIVERSITY OF HAWAII, PROPOSAL.
- * 97 WOODCOCK, G.R.; GREGORY, D.L.; BOEING AEROSPACE CO.
"ELECTRICITY MAKING SATELLITE PROPOSED." 25 JUN 1973, BOEING AEROSPACE CO., SEATTLE, NEWSPAPER ARTICLE *** THE DAYTON DAILY NEWS, JUN 1973 ***.
- 98 POLCYN, K.A.; INFORMATION SCIENCES, INC.
"FUTURE UNITED STATES EDUCATIONAL BROADCAST SATELLITE EXPERIMENTS: THE STATE OF ALASKA." JAN 1974, INFORMATION SCIENCES INC, WASHINGTON, D.C., JOURNAL ARTICLE, *** EDUCATIONAL TECHNOLOGY, VOL 14, NO. 1, PP 27-31, JAN 1974 ***.
- * 99 HUPE, H.H.; DEPARTMENT OF HEALTH, EDUCATION AND WELFARE
"THE COMING "BROADCAST" SATELLITES: WHERE THEY SHOULD AND SHOULD NOT BE USED IN DELIVERING EDUCATION SERVICES." DEC 74, DEPARTMENT OF HEALTH, EDUCATION AND WELFARE, JOURNAL ARTICLE *** EDUCATIONAL TECHNOLOGY, VOL. 14, NO. 12, PP 40-43, DEC 1974 ***.
- 100 ZIPSER, E.J.; TAYLOR, R.C.; NATIONAL CENTER FOR ATMOSPHERIC RESEARCH; UNIVERSITY OF HAWAII
"A CATALOGUE OF METEOROLOGICAL DATA OBTAINED DURING THE LINE ISLANDS EXPERIMENT FEBRUARY-APRIL 1967." JAN 1968, HAWAII INSTITUTE OF GEOPHYSICS, UNIVERSITY OF HAWAII, TECH. REPT. (NATIONAL CENTER FOR ATMOSPHERIC RESEARCH).
- 101 ANDERSON, R.E.; GENERAL ELECTRIC CO.
"SECOND QUARTERLY REPORT FOR ATS RANGING AND POSITIONING EXPERIMENT (25 FEB 69-25 MAY 69)." MAY 1969, GENERAL ELECTRIC CO., TECH. REPT., NAS5-11634 (GODDARD SPACE FLIGHT CENTER).
- 102 BUTLER, M.I.; NASA/GODDARD SPACE FLIGHT CENTER
"NASA METEOROLOGICAL AND COMMUNICATIONS SATELLITE PROGRAMS." FEB 1969, OPERATIONAL SATELLITES OFFICE, GODDARD SPACE FLIGHT CENTER, TECH. REPT., NAS A-X-482-69-16, (NASA).

*Abstract not in Volume 4.

- 103 SUGNI, V.E.; PARENT, R.J.; UNIVERSITY OF WISCONSIN
"DETERMINATION OF THE SEA SURFACE SLOPES DISTRIBUTION AND WIND VELOCITY USING SUN GLITTER VIEWED FROM A SYNCHRONOUS SATELLITE." DEC 1968, UNIVERSITY OF WISCONSIN, TECH. REPT., CONTRACT NO. NASW-65--1958-1968 (NASA).
- 104 BRADBURY, D.L.; UNIVERSITY OF CHICAGO
"DEVELOPMENT OF A DRY LINE AS SHOWN BY ATS CLOUD PHOTOGRAPHY AND VERIFIED BY RADAR AND CONVENTIONAL AEROLOGICAL DATA." NOV 1969, DEPARTMENT OF GEOPHYSICAL SCIENCES, THE UNIVERSITY OF CHICAGO, TECH. REPT. NO. 80 (U.S. WEATHER BUREAU).
- 105 FUJITA, T.T.; BLACK, P.G.; UNIVERSITY OF CHICAGO; NATIONAL HURRICANE RESEARCH LABORATORY
"IN- AND OUTFLOW FIELD OF HURRICANE DEBBIE AS REVEALED BY ECHO AND CLOUD VELOCITIES FROM AIRBORNE RADAR AND ATS-3 PICTURES." DEC 1969, DEPT. OF GEOPHYSICAL SCIENCES, UNIV. OF CHICAGO, NATIONAL HURRICANE RESEARCH LABORATORY, MIAMI, FLORIDA, TECH. REPT..
- 106 SUNDERLIN, W.S.; NASA/GODDARD SPACE FLIGHT CENTER
"THE ATS-1 SPIN SCAN CAMERA EXPERIMENT." APR 1967, GODDARD SPACEFLIGHT CENTER, TECH. REPT. (NASA).
- 107 SEREBRENY, S.M.; BRAIN, A.E.; HADFIELD, R.G.; STANFORD RESEARCH INSTITUTE
"COMPARISONS OF MEASUREMENTS OF CLOUD MOTIONS." AUG 1969, STANFORD RESEARCH INSTITUTE, MENLO PARK, CALIF., TECH. REPT., SRI PROJECT NO. 7496, CONTRACT NO. E-11-69(N) (ENVIRONMENTAL SCIENCE SERVICE ADMINISTRATION).
- 108 NINOMIYA, K.; UNIVERSITY OF CHICAGO
"METEOROLOGICAL SATELLITE STUDY ON THE DEVELOPMENT OF TORNADO-PRODUCING THUNDERSTORMS." 1969, UNIVERSITY OF CHICAGO, TECH. REPT., (AMERICAN METEOROLOGICAL SOCIETY).
- 109 FUJITA, T.T.; BRADBURY, D.L.; MURINO, C.; HULL, L.; UNIVERSITY OF CHICAGO; ST. LOUIS UNIVERSITY
"A STUDY OF MESOSCALE CLOUD MOTIONS COMPUTED FROM ATS-1 AND TERRESTRIAL PHOTOGRAPHS." MAR 1968, UNIV. OF CHICAGO, ST. LOUIS UNIV., TECH. REPT., SMR P RESEARCH PAPER NO. 80 (ENVIRONMENTAL SCIENCE SERVICE ADMINISTRATION).
- 110 EDRAUER, F.; GOEBEL, W.; RAAB, M.; WUNNENBERG, H.; INSTITUTE FOR SATELLITE ELECTRONICS
"EXPERIMENTS WITH THE ATS-3 SATELLITE IN REGARD TO FUTURE APPLICATIONS OF NAVIGATIONAL SATELLITES FOR SHIPS." SEP 1969, INSTITUTE FOR SATELLITE ELECTRONICS, WEST GERMANY, TECH. REPT.
- 111 VONDER HAAR, T.H.; CRAM, R.S.; UNIVERSITY OF WISCONSIN
"A PILOT STUDY ON THE APPLICATION OF GEOSYNCHRONOUS METEOROLOGICAL SATELLITE DATA TO VERY SHORT RANGE TERMINAL FORECASTING." SEP 1970, SPACE SCIENCE AND ENGINEERING CENTER, UNIV. OF WISCONSIN, TECH. REPT., AFCL-70-0493, CONTRACT NO. F19628-70-C-0207 (AIR FORCE CAMBRIDGE RESEARCH LABS).
- 112 KOENIG, E.W.; BRANCHFLOWER, G.A.; INTERNATIONAL TELEPHONE AND TELEGRAPH CORPORATION (ITT)
"A REVIEW OF THE IMAGE DISSECTOR METEOROLOGICAL CAMERAS AND A VIEW OF THEIR FUTURE." MAR 1969, AEROSPACE/OPTICAL DIV, INTERNATIONAL TELEPHONE AND TELEGRAPH CORP., FORT WAYNE, INDIANA, TECH. REPT. (NASA).

- * 113 GLASSEN, H.G.; DEPT. OF ENERGY, MINES, AND RESOURCES - CANADA
"REMOTE SENSING VIA SATELLITE: THE CANADIAN EXPERIENCE." 1973, CANADIAN
DEPARTMENT OF ENERGY, MINES, AND RESOURCES, OTTAWA, ONTARIO, JOURNAL ARTIC
LE, *** IMPACT OF SCIENCE ON SOCIETY, VOL. XXIV, NO. 3, 1974, PP 213-220 *
**.
- 114 MORITA, Y; ZWAS, F.; COLLING, D.; UNIVERSITY OF MICHIGAN
"SATELLITE NAVIGATION STUDIES." AUG 1967, WILLOW RUN LABORATORIES, INSTIT
UTE OF SCIENCE AND TECHNOLOGY, UNIV. OF MICHIGAN, ANN ARBOR, TECH. REPT.,
CONTRACT NO. NASR-34-(10), (NASA).
- 115 ANDERSON, R.E.; GENERAL ELECTRIC CO.
"FIRST QUARTERLY REPORT FOR ATS RANGING AND POSITION FIXING EXPERIMENT."
AUG 1969, RESEARCH AND DEVELOPMENT CENTER, GENERAL ELECTRIC CO., SCHENECTA
DY, NEW YORK, TECH. REPT., CONTRACT NO. NAS5-11634, (NASA-GODDARD SPACE FL
IGHT CENTER).
- 116 ANDERSON, R.E.; GENERAL ELECTRIC COMPANY
"PERIODIC PROGRESS REPORT FOR ATS RANGING AND POSITION FIXING EXPERIMENTS.
" JUL 1970, RESEARCH AND DEVELOPMENT CENTER, GENERAL ELECTRIC CO., SCHENE
CTADY, NEW YORK, TECH. REPT., CONTRACT NO. NAS5-11634, (NASA-GODDARD SPACE
FLIGHT CENTER).
- 117 ANDERSON, R.E.; GENERAL ELECTRIC COMPANY
"EXPERIMENTAL EVALUATION OF VHF FOR POSITION FIXING BY SATELLITE." APR 19
70, GE RESEARCH AND DEVELOPMENT CENTER, SCHENECTADY, NEW YORK, TECH. REPT.
- * 118 LEESE, J.A.; BOOTH, A.L.; GUDSHALL, F.A.; NATIONAL ENVIRONMENTAL SCIENCE C
ENTER; ENVIRONMENTAL SCIENCE SERVICES ADMINISTRATION
"ARCHIVING AND CLIMATOLOGICAL APPLICATIONS OF METEOROLOGICAL SATELLITE DAT
A." JUL 1970, NATIONAL ENVIRONMENTAL SCIENCE CENTER (NESC), ENVIRONMENTAL
SCIENCE SERVICES CENTER (ESSC), WASHINGTON, D.C., TECH. REPT.
- * 119 UNKNOWN
"FIRST ATS LAUNCH" DEC 1966, NEWSPAPER ARTICLE, N67 11348.
- * 120 WALLING, VIC
"INTERACTION BETWEEN USERS AND THE TECHNOLOGY." MAR 73, PROG. REPT., CONT
RACT NO. NASA NGR 05-020-659 (NASA).
- * 121 ALASKA EDUCATIONAL BROADCASTING COMMISSION
"ALASKA/ATS-F: HEALTH/EDUCATION TELECOMMUNICATIONS EXPERIMENT ... PROGRAM
PLANS." DEC 72, ALASKA EDUCATIONAL BROADCASTING COMMISSION, ANCHORAGE, A
LASKA, PROPOSAL.
- 122 STATE OF ALASKA
"A PROPOSAL FOR SATELLITE COMMUNICATIONS DEMONSTRATION FOR ALASKA." SEP 1
969, STATE OF ALASKA, JUNEAU, PROPOSAL.
- 123 QUAYLE, D.R.; NATIONAL PUBLIC RADIO
"PROPOSAL FOR EXPERIMENTAL USE OF ATS." APR 71, NATIONAL PUBLIC RADIO, WA
SHINGTON, D.C., PROPOSAL.
- 124 STATE OF ALASKA
"HEALTH AND EDUCATION SATELLITE COMMUNICATIONS PROJECT PLAN." JUL 71, STA
TE OF ALASKA, PROPOSAL.

*Abstract not in Volume 4.

- 125 NORTHROP, C.M.; STATE OF ALASKA
"CORRESPONDENCE ON THE HAWAII-ALASKA CLASSROOM EXCHANGE PROGRAM." APR 73,
SATELLITE EXPERIMENT COORDINATOR, STATE OF ALASKA, CORRESPONDENCE.
- 126 COMSAT
"COMSAT'S PROPOSAL FOR IMPLEMENTING SATELLITE COMMUNICATIONS IN ALASKA."
JAN 69, COMSAT, PROPOSAL.
- 127 ERLICK, E.M.; AMERICAN BROADCASTING COMPANIES, INC.
"PROPOSED SATELLITE TRANSMISSION TEST TO ANCHORAGE, ALASKA." SEP 69, AMER
ICAN BROADCASTING COMPANIES, NEW YORK NEW YORK, PROPOSAL.
- 128 STANLEY, G.M.; UNIVERSITY OF ALASKA
"INFORMATION UPDATE ON ALASKA ATS EXPERIMENTS." MAR 72, GEOPHYSICAL INSTI
TUTE OF THE UNIVERSITY OF ALASKA, COLLEGE, ALASKA, PROG. REPT.
- *129 LEW, W.; MARSTEN, R.B.; ARNOLD, B.; ALASKA EDUCATIONAL BROADCASTING.
"CORRESPONDENCE ON CONTINUATION OF ATS-1 FOR ALASKA EXPERIMENT." JAN 73,
ALASKA EDUCATIONAL BROADCASTING, ANCHORAGE, ALASKA, CORRESPONDENCE.
- 130 DRUMMOND, R.R.; HALL, F.; NASA/GODDARD SPACE FLIGHT CENTER
"WEATHER FACSIMILE (WEFAX) EXPERIMENT." 1966; NASA, GSFC, (NASA).
- 134 KELLEHER, J.J.; NATIONAL SCIENTIFIC LABS, INC.
"FIELD EVALUATION OF SELECTED ATS USER EXPERIMENTS." MAY 73; SYSTEMATICS G
ENERAL CORP., NAT'L SCIENTIFIC LABS, MCLEAN, VIRGINIA, NAS5-11835, (NASA G
SFC).
- 135 ROSENBERG, J.D.; NASA/GODDARD SPACE FLIGHT CENTER
"SUMMARIES OF ATS USER EXPERIMENTS." JAN 72; NASA, GSFC, GREENBELT, MARYL
AND.
- *136 KELLEHER, J.J.; NATIONAL SCIENTIFIC LABS, INC.
"CATALOG OF ATS USER EXPERIMENTS." SEP 72; SYSTEMATIC GENERAL CORP., NATI
L SCIENTIFIC LABS, MCLEAN, VIRGINIA, (NASA GSFC).
- 137 MARSTEN, R.B.; NASA/GODDARD SPACE FLIGHT CENTER
"INVENTORY OF COMMUNICATIONS SATELLITES AND ASSOCIATED GROUND FACILITIES."
JUL 69; NASA, GSFC, GREENBELT, MARYLAND.
- 138 NEWELL, H.E.
"REPORT TO CONGRESS ON PURPOSE AND FUNCTION OF ATS EXPERIMENTS" 1969, PROGRE
SS REPORT.
- 139 UNKNOWN
"DESCRIPTION OF ATS-3" 1967, BIBLIOGRAPHY.
- 140 DUCKWAY, P.; CHARLIE, M.; DIMMICK, S.; UNIVERSITY OF ALASKA
"PROGRAM SCHEDULING OF ATS-1 FOR ALASKA EDUCATION EXPERIMENT." APR 73, AC
TION STUDY SATELLITE PROJECT, UNIVERSITY OF ALASKA, ANCHORAGE, ALASKA, TEC
H. MEMO.
- 141 HIERERT, A.G.; NORTHROP, C.M.; ARNOLD, R.D.; POLLOCK, H.W.; STATE OF ALASKA
"CORRESPONDENCE & NOTES FROM THE EARLY PLANNING PERIOD OF THE ALASKA EXPER
IMENT." APR 68 - AUG 70, SATELLITE COMMUNICATIONS TASK FORCE, STATE OF AL
ASKA, ANCHORAGE, ALASKA, CORRESPONDENCE/INFORMAL NOTES.
- 142 STATE OF ALASKA
"INTERIM ALASKA SATELLITE COMMUNICATIONS REPORT." DEC 69, STATE OF ALASKA
, PROGRESS REPORT.

*Abstract not in Volume 4.

- 143 STATE OF ALASKA
"A PROPOSAL FOR SATELLITE COMMUNICATIONS DEMONSTRATION FOR ALASKA." NOV 69, STATE OF ALASKA, PROPOSAL.
- *144 ALMOND, J.; DRURY, C.M.; GOLDEN, D.A.; TELESAT CANADA
"CANADIAN DOMESTIC COMMUNICATION SATELLITE SYSTEM." OCT 68-AUG 69, TELESAT CANADA, OTTAWA, ONTARIO, PROPOSAL.
- *146 SCHNEIDER, P.; RCA GLOBAL COMMUNICATIONS, INC.
"RCA ALASKA COMMUNICATIONS EFFORT USING NASA/ATS-1." JUL 70, RCA GLOBAL COMMUNICATIONS, INC., NEW YORK, NEW YORK, PROPOSAL.
- 147 PITTMAN, T.S.; ACTION-STUDY SATELLITE PROJECT
"BACKGROUND AND JUSTIFICATION FOR ATS-1 CONTINUATION REQUEST." SEP 72, ACTION-STUDY SATELLITE PROJECT, FAIRBANKS, ALASKA, PROPOSAL.
- 148 PARKER, W.B.; ACTION STUDY OF EDUCATIONAL USES OF SATELLITE COMMUNICATIONS IN REMOTE ALASKAN COMMUNITIES
"AN EVALUATION OF SOME EDUCATIONAL USES OF ATS-1 IN ALASKA." JUL 72, ACTION STUDY OF EDUCATIONAL USES OF SATELLITE COMMUNICATIONS IN REMOTE ALASKAN COMMUNITIES, ANCHORAGE, ALASKA, PROGRESS REPORT.
- 149 PARKER, W.B.; ACTION STUDY OF EDUCATIONAL USES OF SATELLITE COMMUNICATIONS IN REMOTE ALASKAN COMMUNITIES
"INTERIM EVALUATION REPORT: PHASE I." JAN 72, ACTION STUDY OF EDUCATIONAL USES OF SATELLITE COMMUNICATIONS IN REMOTE ALASKAN COMMUNITIES, ANCHORAGE, ALASKA, PROGRESS REPORT.
- 150 GOULD, R.; UNKNOWN
"PRELIMINARY REPORT ON TRANSCONTINENTAL TELEVISION." OCT 69; UNKNOWN.
- 151 LUSIGNAN, B.B.; STANFORD ELECTRONICS LABORATORIES
"PROPOSAL FOR AN ATS CIRCUIT BETWEEN STANFORD AND BRAZIL." APR 1969; STANFORD UNIVERSITY, RADIO SCIENCE LAB, STANFORD ELECTRONICS LAB, STANFORD, CALIF.
- 152 SUPPES, P.; JAMISON, DEAN; STANFORD UNIVERSITY
"PROPOSAL FOR DISTRIBUTING CATV TO RURAL AREAS." MAY 71; STANFORD UNIV., STANFORD, CAL.
- *153 MILLIONS; DEPARTMENT OF HEALTH, EDUCATION AND WELFARE
"NEWS RELEASE ON ATS USE IN ALASKA." JUN 71; HEW, OFFICE OF EDUCATION, WASHINGTON, D.C., NEWSPAPER ARTICLE.
- 154 ERLICK, E.M.; AMERICAN BROADCASTING COMPANIES, INC.
"PROPOSED SATELLITE TRANSMISSION TEST TO ANCHORAGE ALASKA." AUG 69; ABC, NEW YORK, NY.
- 155 MACY, J.W.; CORPORATION FOR PUBLIC BROADCASTING
"PROPOSAL FOR EXPERIMENTAL USE OF ATS." SEP 69; CPB, WASHINGTON, D.C.
- 156 HINCHMAN, W.R.; CORP. FOR PUBLIC BROADCASTING
"TRANSCONTINENTAL INTERCONNECTION EXPERIMENT TEST SCHEDULE." FEB 70; CORPORATION FOR PUBLIC BROADCASTING, NEW YORK, NEW YORK.

*Abstract not in Volume 4.

- 157 UNKNOWN; HUGHES AIRCRAFT CO.
"ATS-III VIDEO LINK TEST REPORT." MAR 70; HUGHES AIRCRAFT CO., EL SEGUNDO, CAL., (CORP. FOR PUBLIC BROADCASTING).
- 158 TEMPLETON, LAWRENCE W.; HAMMETT & EDISON CONSULTANTS
"TRANSCONTINENTAL TELEVISION RELAY DEMONSTRATIONS USING ATS-1 AND ATS-III SATELLITES." MAY 70; HAMMETT AND EDISON CONSULTANTS, SAN FRANCISCO, CAL., (CORP FOR PUBLIC BROADCASTING).
- 159 UNKNOWN; CORP FOR PUBLIC BROADCASTING
"TRANSCONTINENTAL INTERCONNECTION EXPERIMENT TECHNICAL ANALYSIS." MAR 70; CORP FOR PUBLIC BROADCASTING, NEW YORK, NY.
- 160 KELLER, C.H.; NASA/AMES RESEARCH CENTER, SPACECRAFT DATA SYSTEMS BRANCH
"ATS-1 COMPUTER COMMUNICATIONS EXPERIMENT." FEB 72, SPACECRAFT DATA SYSTEMS BRANCH, AMES RESEARCH CENTER, MOFFETT FIELD, CALIFORNIA, PROPOSAL, (NASA).
- 161 INTERSPACE COMMUNICATIONS, INC.
"SATELLITE COMMUNICATIONS FOR ALASKA." JUN 70, INTERSPACE COMMUNICATIONS, INC., PROPOSAL (USOC).
- 162 PARKER, E.P.; STANFORD UNIVERSITY
"QUARTERLY PROGRESS REPORT: EVALUATION OF MEDICAL COMMUNICATION BY ATS-1 SATELLITE." AUG 73, STANFORD UNIVERSITY, PROG. REPT.
- 163 PARKER, E.P.; ROSENBERG, J.D.; STANFORD UNIVERSITY
"CORRESPONDENCE IN REGARD TO FILM ENTITLED 'SATELLITE HOUSE CALL'." JUL 73, INSTITUTE FOR COMMUNICATION RESEARCH, STANFORD UNIVERSITY, CORRESPONDENCE.
- 164 MCCARN; DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE/STATE OF ALASKA EXPERIMENTS
"DEPARTMENT OF HEALTH, EDUCATION AND WELFARE APPLICATION TECHNOLOGY SATELLITE VERY HIGH FREQUENCY EXPERIMENT PLAN." MAY 71, HEN/STATE OF ALASKA EXPERIMENTS, PROPOSAL.
- 165 CSC; NASA/GODDARD SPACE FLIGHT CENTER
"PRELIMINARY REPORT: EXPERIMENTAL SATELLITE SYSTEM FOR ALASKA." AUG 70, GODDARD SPACE FLIGHT CENTER, PROG. REPT.
- 166 SHAPLEY, W.H.; NASA
"BRIEFINGS ON STUDY OF SATELLITE COMMUNICATIONS FOR ALASKA." SEP 70, OFFICE OF THE ADMINISTRATOR, NASA, PROG. REPT.
- 167 UNIVERSITY OF ALASKA
"ATS ALASKA TELE-MEDICINE EXPERIMENT." NOV 72, UNIVERSITY OF ALASKA, TECHNICAL REPT.
- * 168 GRAVEL, M.; U.S. SENATOR FROM ALASKA
"NOTES ON A PROPOSAL BY SEN. GRAVEL TO ENTER COOPERATIVE VENTURE WITH CANADA FOR ALASKA SATELLITE COMMUNICATIONS." 1970, U.S. SENATE, WASHINGTON, D. C., INFORMAL NOTES.

*Abstract not in Volume 4.

- *169 NORTHROP, C.M.; STATE OF ALASKA
"CORRESPONDENCE IN REGARD TO INSTALLATION OF ATS-F GROUND STATIONS IN ALASKA." JUN 73; OFFICE OF THE GOVERNOR, STATE OF ALASKA, CORRESPONDENCE.
- 170 LAWSON, R.G.; WEDEMEYER, C.A.; UNIVERSITY OF WISCONSIN, SPACE SCIENCE AND ENGINEERING CENTER
"PROPOSAL FOR DEMONSTRATION OF INSTRUCTION VIA SATELLITE." JUL 67; UNIV. OF WISCONSIN, SPACE SCIENCE AND ENGINEERING CENTER, MADISON, WIS.
- *171 LAWSON, R.G.; SHAPELY, W.H.; UNIVERSITY OF WISCONSIN, SPACE SCIENCE AND ENGINEERING CENTER
"CORRESPONDENCE ON UNIVERSITY OF WISCONSIN EXPERIMENT." 1968; UNIVERSITY OF WISCONSIN, SPACE SCIENCE AND ENGINEERING CENTER, MADISON, WIS.
- *172 ROUDARUSH, D.E.; PROJECT SEARCH
"CORRESPONDENCE RELATED TO PROJECT SEARCH." 1971; CALIFORNIA CRIME TECHNOLOGICAL RESEARCH FOUNDATION, SACRAMENTO, CAL.
- 173 ALNUTT, M.W.; KING, C.H.; BOEING
"VHF AIRCRAFT ANTENNAS FOR COMMUNICATIONS VIA SYNCHRONOUS SATELLITE." JUL 66; BOEING, SEATTLE, WASH.
- 174 STEELE, N.D.; AERONAUTICAL RADIO INC.
"TEST FOR COMPARISON OF PRE-PROCESSED AND UNPROCESSED VOICE MODULATION THROUGH THE ATS-1 SATELLITE." FEB 67; AERONAUTICAL RADIO INC., ANNAPOLIS, MD.
- 175 KURZ, CHARLES G.; MARITIME ADMINISTRATION
"ATS-B VHF COMMUNICATION EXPERIMENT TEST PLAN FOR SATELLITE COMMUNICATION EQUIPMENT." AUG 66; US DEPT OF COMMERCE, MARITIME ADMINISTRATION, WASHINGTON, D.C.
- 176 UNKNOWN; AERONAUTICAL RADIO INC.
"MONTHLY REPORT OF ARINC/AIRLINE INDUSTRY PARTICIPATION IN NASA ATS-1 SATELLITE VHF COMMUNICATIONS EXPERIMENT." MAR 67; AERONAUTICAL RADIO INC., ANNAPOLIS, MARYLAND.
- 177 REX, D.F.; NATIONAL CENTER FOR ATMOSPHERIC RESEARCH
"OPERATIONAL LESSONS OF THE LINE ISLAND EXPERIMENT." MAY 67; NATIONAL CENTER FOR ATMOSPHERIC RESEARCH (NCAR), FACILITIES LABORATORY, BOULDER, COLO.
- 178 MUELLER, E.J.; KURZ, C.G.; MARITIME ADMINISTRATION
"A PRELIMINARY REPORT ON THE MARITIME MOBILE SATELLITE COMMUNICATIONS TESTS ABOARD THE S.S. SANTA LUCIA." APR 68; DEPT OF COMMERCE, MARITIME ADMINISTRATION, WASHINGTON, D.C.
- 179 WAX, DAVID W.; UNIVERSITY OF HAWAII
"STATUS ON UH/ALPHA PARTICIPATION IN THE ATS-1 COMPUTER COMMUNICATIONS EXPERIMENT." SEP 74; UNIVERSITY OF HAWAII, THE ALOHA SYSTEM, HONOLULU, HAWAII.
- *180 HIEBERT, A.G.; NORTHERN TELEVISION, INC.
"CORRESPONDENCE TO WERNER VON BRAUN IN REGARD TO ALASKA ACTIVITY WITH ATS-1." JUL 71; NORTHERN TELEVISION, INC., ANCHORAGE, CORRESPONDENCE.

*Abstract not in Volume 4.

- *181 ANCHORAGE DAILY TIMES
"SATELLITE LINKS SET." MAR 71, ANCHORAGE DAILY TIMES, NEWSPAPER ARTICLE.
- *182 ANCHORAGE DAILY NEWS
"EDUCATIONAL TV READIED FOR THE BUSH." JUL 71, ANCHORAGE DAILY NEWS, NEWS
PAPER ARTICLE.
- *183 ANCHORAGE DAILY NEWS
"SATELLITES AID HERE." JUL 71, ANCHORAGE DAILY NEWS, NEWSPAPER ARTICLE.
- *184 ANCHORAGE DAILY TIMES
"EDUCATIONAL TV POLICY IS TOPIC." JUN 71, ANCHORAGE DAILY TIMES, NEWSPAPE
R ARTICLE.
- *185 ANCHORAGE DAILY TIMES
"YUKON TV PLANS WILL 'GO SLOW'." JUN 71, ANCHORAGE DAILY TIMES, NEWSPAPER
ARTICLE.
- *186 BOWDITCH, M.; ANCHORAGE DAILY NEWS
"BROADCAST COMMISSION STUDIES TV FOR BETHEL." JUN 71, ANCHORAGE DAILY NEW
S, NEWSPAPER ARTICLE.
- *187 ANCHORAGE DAILY NEWS
"FUNDS FOR EDUCATIONAL SATELLITE." JUN 71, ANCHORAGE DAILY NEWS, NEWSPAPE
R ARTICLE.
- *188 ANCHORAGE DAILY TIMES
"FUNDS ALLOCATED FOR SATELLITE HERE." JUN 71, ANCHORAGE DAILY TIMES, NEWS
PAPER ARTICLE.
- *189 ANCHORAGE DAILY TIMES
"VILLAGERS HEALTH SATELLITE FUNDED." JUN 71, ANCHORAGE DAILY TIMES, NEWSP
APER ARTICLE.
- *190 UNKNOWN
"DESCRIPTION OF ATS-2." MAY 66.
- 191 GARSTANG, MICHAEL; FLORIDA STATE UNIVERSITY
"A REQUEST TO NASA FOR USE OF ATS-C IN SUPPORT OF THE BARBADOS METEOROLOGI
CAL AND OCEANOGRAPHIC EXPERIMENT." SEP 67; FSU, DEPT OF OCEANOGRAPHY, TAL
LAHASSEE, FLORIDA.
- 192 HALL, A.R.; BERRY, L.; ALLIED RESEARCH ASSOCIATES
"NASA/ESSA WEFAX EXPERIMENT EVALUATION REPORT ATS-1." MAY 67; ALLIED RESE
ARCH ASSOCIATES, CONCORD, MASS, TR NO. 3, NAS5-10204, (NASA).
- 193 REX, D.F.; NATIONAL CENTER FOR ATMOSPHERIC RESEARCH
"SUMMARY OF LINE ISLAND EXPERIMENT OPERATIONAL PLANNING." JAN 67; NATIONAL C
ENTER FOR ATMOSPHERIC RESEARCH (NCAR), FACILITIES LABORATORY, BOULDER, COLO.
- 194 HIRAI, MASAICHI; RADIO RESEARCH LABORATORIES
"TEST SCHEDULE OF EXPERIMENTAL PCM COMMUNICATION SYSTEM WITH APPLICATION T
ECHNOLOGY SATELLITE." AUG 66; MINISTRY OF POSTS AND TELECOMMUNICATIONS, 2
RL, TOKYO, JAPAN.

*Abstract not in Volume 4.

- 195 GLOSSIP, G.; CIVIL AVIATION DEPARTMENT
"ATS III SATELLITE EXPERIMENTS, PROVISIONAL PROPOSALS." APR 68; BOARD OF
TRADE, CIVIL AVIATION DEPT., NATIONAL AIR TRAFFIC CONTROL SERVICES, LONDON
, ENGLAND.
- 196 HOMEWOOD, M.I.; DEPT. OF SUPPLY
"PROPOSAL FOR SATELLITE RANGING EXPERIMENTS USING ATS-1." DEC 69; DEPT OF
SUPPLY, MELBOURNE, AUSTRALIA.
- 197 JANZA, FRANK J.; CALIFORNIA STATE UNIVERSITY
"PROPOSAL FOR PACIFIC-MAINLAND EDUCATION AND COMMUNICATION EXPERIMENTS BY
SATELLITE FOR ADVANCING REMOTE SENSING APPLICATIONS BY ERTS, AIRCRAFT, AND
SKYLAB." APR 73; CALIFORNIA STATE UNIV., SACRAMENTO, CALIFORNIA.
- 198 ANDERSON, R.E.; MARITIME ADMINISTRATION
"INLAND WATERWAYS SATELLITE COMMUNICATION EXPERIMENT TEST PLAN." OCT 72;
US DEPT OF COMMERCE, MARITIME ADMINISTRATION, WASHINGTON, D.C.
- 199 HANSON, D.W.; NATIONAL BUREAU OF STANDARDS
"PROPOSAL FOR USE OF THE ATS-3 VHF TRANSPONDER." SEP 70; US DEPT OF COMME
RCE, NBS, WASHINGTON, D.C.
- 200 HANSON, D.W.; NATIONAL BUREAU OF STANDARDS
"PROPOSAL TO EXTEND THE NBS TIME AND FREQUENCY EXPERIMENT USING THE ATS-3
VHF TRANSPONDER." JUN 72; US DEPT. OF COMMERCE, NBS, WASHINGTON, D.C.
- 201 LUNDQUIST, G.E.; FAA
"RECOMMENDED L-BAND EXPERIMENTAL PROGRAM USING ATS-5." AUG 72; DEPT. OF T
RANSPORTATION, FAA, WASHINGTON, DC.
- 202 NORDBERG, W.; NASA/GODDARD SPACE FLIGHT CENTER
"CORRESPONDENCE CONCERN JOINT US/USSR BERING SEA EXPERIMENT." 1972; NASA,
GSFC, GREENBELT, MARYLAND.
- 203 HORTON, THOMAS F.; THALASSA, INC.
"CORRESPONDENCE CONCERNING ATS-1 SUPPORT FOR J. COUSTEAU SOUTHERN POLAR EX
PEDITION." OCT 72; THALASSA, LOS ANGELES, CALIF.
- 204 WITHERS, D.J.; TELECOMMUNICATIONS HDQ
"PROPOSAL FOR UK SHIP/SHORE TEST USING ATS-3." JUL 70; POST OFFICE, TELEC
OMMUNICATIONS HDQ., LONDON, ENGLAND.
- 205 BRESNAHAN, L.F.; UNIVERSITY OF THE SOUTH PACIFIC
"A PROPOSAL FOR AN EXPERIMENT IN EDUCATIONAL COMMUNICATIONS." JUL 73; UNI
V. OF THE SOUTH PACIFIC, LAUCALA BAY, SUVA, FIJI.
- 206 CUTTING, A.K.; BERKOWITZ, D.A.; UNIVERSITY OF THE SOUTH PACIFIC
"PEACESAT-A REPORT ON THE PROGRESS OF AN EXPERIMENT IN INTERNATIONAL EDUCA
TIONAL COMMUNICATIONS." 1972; UNIV. OF THE SOUTH PACIFIC, SUVA, FIJI.
- 207 SHAPLEY, W.H.; NAVSAT SYSTEMS INC.
"LETTER REQUESTING ATS TIME FOR MARITIME EXPERIMENT." JUL 69; NAVSAT SYST
EM INC., NEWPORT BEACH, CALIF.

- 208 HONEWOOD, M.I.; DEPT. OF SUPPLY
"AUSTRALIAN REQUEST FOR INFORMATION CONCERNING JAPANESE PULSE CODE MODULAT
ION TESTS VIA ATS." MAY 68; DEPT. OF SUPPLY, CANBERRA, AUSTRALIA.
- 209 PETERSON, R.W.; LOS ALAMOS SCIENTIFIC LABORATORY
"REQUEST FOR ATS-1 TIME FOR CONJUGATE AURORAL STUDIES." JUN 70; UNIV. OF
CALIF., LOS ALAMOS SCIENTIFIC LABORATORY, LOS ALAMOS, NEW MEXICO.
- 210 HANLEY, A.; WELLINGTON POLYTECHNIC
"WELLINGTON POLYTECHNIC SATELLITE COMMUNICATION PROJECT INTERIM REPORT."
OCT 72; WELLINGTON POLYTECHNIC, WELLINGTON, NEW ZEALAND.
- 211 BYSTROM, J.W.; PEACESAT
"CORRESPONDENCE BETWEEN BYSTROM AND MARSTEN." 70-73; UNIV. OF HAWAII, PEAC
ESAT, HONOLULU, HAWAII.
- 212 UNKNOWN; MANOA TERMINAL
"PEACESAT STAFF BULLETIN - ISSUE NO. 15,16,17,18." APR-JUL 73; PEACESAT,
MANOA TERMINAL.
- *213 NORWOOD, F.W.; SMITH, D.D.; JOINT COUNCIL ON EDUCATIONAL TELECOMMUNICATION
S(JCET)
"EVALUATION OF 1973 PEACESAT PROPOSAL AND REPORT." OCT 73; JCET, WASHINGT
ON, DC, (NASA).
- 214 BYSTROM, J.W.; PEACESAT
"THE PEACESAT PROJECT: TELECOMMUNICATIONS AND INTERNATIONAL DEVELOPMENT IN
HEALTH AND EDUCATION." 1972; UNIVERSITY OF HAWAII, PEACESAT, HONOLULU, HAW
AII.
- 215 BYSTROM, J.W.; PEACESAT
"RESPONSE TO NASA CRITICISM OF PEACESAT COMBINED PROPOSAL AND REPORT." OC
T 73; UNIV. OF HAWAII, PEACESAT, HONOLULU, HAWAII.
- 216 BYSTROM, J.W.; PEACESAT
"PEACESAT PROPOSAL FOR EXPERIMENTAL USE OF APPLICATIONS TECHNOLOGY SATELLI
TES." OCT 69; UNIV. OF HAWAII, PEACESAT, HONOLULU, HAWAII.
- 217 BYSTROM, J.W.; PEACESAT
"REPORT AND REQUEST TO NASA FROM PEACESAT." AUG 71; UNIV. OF HAWAII, PEAC
ESAT, HONOLULU, HAWAII.
- 218 HANLEY, ANTHONY; PEACESAT
"EXPERIMENTAL SATELLITE TELECOMMUNICATIONS NETWORKS IN THE PACIFIC HEMISPHE
RE." AUG 74; WELLINGTON POLYTECHNIC, SCHOOL OF PHYSICS ELECTRONICS TELEC
OMMUNICATIONS AND ELECTRICAL ENGINEERING, WELLINGTON, NEW ZEALAND.
- 219 UNKNOWN; PEACESAT
"SATELLITE-A WEEKLY PUBLICATION ON PROGRESS OF PEACESAT EXPERIMENT AT WELL
INGTON POLYTECHNIC." NOV 74; WELLINGTON POLYTECHNIC, WELLINGTON, NEW ZEAL
AND.
- 220 BYSTROM, J.W.; PEACESAT
"PEACESAT REQUEST AND PROPOSAL TO NASA FROM THE UNIVERSITY OF HAWAII AS AG
ENT FOR THE STATE OF HAWAII." DEC 70; UNIV. OF HAWAII, PEACESAT, HONOLULU
, HAWAII.

*Abstract not in Volume 4.

- 221 UNKNOWN
"CORRESPONDENCE CONCERNING PEACESAT." 1973; HAWAII, WASHINGTON.
- 222 MORGAN, M.P.; SINGH, J.P.; ANDERSON, B.O.; GREENBERG, E.; WASHINGTON UNIVERSITY
"SATELLITES FOR U.S. EDUCATION: NEEDS, OPPORTUNITIES AND SYSTEMS." 1972; WASHINGTON UNIVERSITY, ST. LOUIS, MISSOURI.
- *223 STJUTEMYER, D.R.; ALOHA SYSTEM
"ANALYTICAL OPTIMIZATION USING COMPUTER ALGEBRAIC MANIPULATION." JUL 74; UNIV. OF HAWAII, ALOHA, HONOLULU, HAWAII.
- 224 LING, SUILIN; TELECONSULT, INC.
"A STUDY OF THE POTENTIAL OF TELECOMMUNICATIONS AND EDUCATIONAL TECHNOLOGY TO SATISFY THE EDUCATIONAL COMMUNICATIONS NEEDS OF THE STATE OF ALASKA." MAY 72; TELECONSULT INC., WASHINGTON, D.C.
- 225 UNKNOWN; UNIVERSITY OF ALASKA, GEOPHYSICAL INSTITUTE
"1972-73 ANNUAL REPORT OF GEOPHYSICAL INSTITUTE." 1973; UNIVERSITY OF ALASKA, GEOPHYSICAL INSTITUTE, FAIRBANKS, ALASKA.
- 227 ABRAMSON, NORMAN; ALOHA SYSTEM
"FINAL TECHNICAL REPORT." JAN 75; UNIV. OF HAWAII, THE ALOHA SYSTEM, HONOLULU, HAWAII, NAS2-6700.
- *229 BINDER, R.; ALOHA SYSTEM
"ALOHA PACKET BROADCASTING - RETROSPECT." JAN 75; THE UNIV. OF HAWAII, THE ALOHA SYSTEM, HONOLULU, HAWAII, TR 875-4.
- 229 MAYER, MAX; GERMANY
"CORRESPONDENCE RELATED TO ATS USE BY GERMANY." OCT 67; GERMANY.
- *230 FUJITA, T.T.; UNIVERSITY OF CHICAGO
"LETTER REGARDING TORNADO RESEARCH." APR 68; UNIV. OF CHICAGO, DEPT. OF GEOPHYSICAL SCIENCES, CHICAGO, ILLINOIS.
- *231 MACY, JOHN W.; CORP. FOR PUBLIC BROADCASTING
"PROPOSED TEST PLAN FOR TELEVISION TRANSMISSION TO HUGHES GROUND STATION AT EL SEGUNDO." JAN 70; CORP. FOR PUBLIC BROADCASTING, WASHINGTON, D.C.
- 232 UNKNOWN; NASA/GODDARD SPACE FLIGHT CENTER
"PRELIMINARY REPORT EXPERIMENTAL SATELLITE SYSTEM FOR ALASKA." AUG 70; GSFC, GREENBELT, MARYLAND.
- 233 UNKNOWN; GENERAL ELECTRIC
"RF NETWORK ON LAND, ON SEA, IN THE AIR." GENERAL ELECTRIC, RESEARCH AND DEVELOPMENT, SCHENECTADY, N.Y.
- 234 ANDERSON, P.E.; GENERAL ELECTRIC
"COMMUNICATIONS AND POSITION FIXING EXPERIMENTS USING THE ATS SATELLITES." 1973; GE, CORP. RESEARCH AND DEVELOPMENT, SCHENECTADY, N.Y.
- 235 BRISKEN, AXEL F.; GENERAL ELECTRIC
"LAND TRIANGULATION OF ATS-5." JUN 75; GENERAL ELECTRIC COMPANY, CORPORATE RESEARCH AND DEVELOPMENT, SCHENECTADY, NEW YORK, JOURNAL ARTICLE.

*Abstract not in Volume 4.

- 236 ANDERSON, R.E.; GENERAL ELECTRIC
"EXPERIMENTAL INVESTIGATION OF AERONAUTICAL AND MARITIME COMMUNICATIONS AND SURVEILLANCE USING SATELLITES." OCT 73; GENERAL ELECTRIC, CORP. RESEARCH AND DEVELOPMENT, SCHENECTADY, N.Y.
- * 237 PIERCE, J.R.; KELLEHER, J.J.; BELL TELEPHONE LABS
"LETTERS REGARDING ATS-5 MILLIMETER-WAVE EXPERIMENT." MAY 68; BELL LABS, MURRAY HILL, N.J.
- 238 IPPOLITO, L.J.; NASA/GODDARD SPACE FLIGHT CENTER
"SELECTED PAPERS ON MILLIMETER-WAVE EXPERIMENTS USING THE ATS-5 SATELLITE." NOV 70; NASA, GSFC, GREENBELT, MARYLAND.
- 239 COLLINS, L.A.; GENERAL ELECTRIC
"A PROPOSAL FOR AN ATS RANGING AND POSITION FIXING EXPERIMENT." JUN 67; GENERAL ELECTRIC, RESEARCH AND DEVELOPMENT CENTER, SCHENECTADY, N.Y.
- 240 UNKNOWN; AERONAUTICAL RADIO INC.
"MONTHLY REPORT OF ARIAC/AIRLINE INDUSTRY PARTICIPATION IN NASA ATS-1 VHF COMMUNICATIONS EXPERIMENT." MAY 67; AERONAUTICAL RADIO INC., ANNAPOLIS, MARYLAND.
- 241 PETRY, C.A.; AERONAUTICAL RADIO, INC.
"EXECUTIVE SUMMARY OF 'REPORT ON ARIAC/AIRLINE INDUSTRY TESTS'." MAR 68, AERONAUTICAL RADIO, INC., TECH. MEMO.
- 242 GARCIA, M.M.; EGG, INC.
"EXECUTIVE REPORT ON 'AIRBORNE SATELLITE COMMUNICATIONS DURING AURORAL STUDIES'." JAN 72, ALBUQUERQUE DIVISION, SERVICES AND SYSTEMS GROUP, EG&G, INC., ALBUQUERQUE, NEW MEXICO, TECH. MEMO. (AEC).
- 243 ROTH, E.J.; CORPORATION FOR PUBLIC BROADCASTING
"EXECUTIVE SUMMARY OF 'TRANSCONTINENTAL INTERCONNECTION EXPERIMENT (TIE)'." NOV 70, CORPORATION FOR PUBLIC BROADCASTING, WASHINGTON, D.C., TECH. MEMO.
- 244 UNIVERSITY OF HAWAII
"EXECUTIVE SUMMARY OF 'INTERIM REPORTS TO NASA FROM THE UNIVERSITY OF HAWAII ON THE PEACESAT PROJECT'." JUN 72, UNIVERSITY OF HAWAII.
- 245 STATE OF ALASKA
"EXECUTIVE SUMMARY OF STATUS REPORTS FROM THE PROJECT DIRECTOR AND HIS ASSOCIATES ON THE ALASKA EXPERIMENT." JUN 72, STATE OF ALASKA, TECH. MEMO.
- 246 STATE OF ALASKA
"EXECUTIVE SUMMARY OF CASE REPORTS FROM THE UNIVERSITIES OF WASHINGTON, WISCONSIN, AND STANFORD IN REGARD TO THE ALASKA EXPERIMENT." JUN 72, STATE OF ALASKA, TECH. MEMO.
- 247 HAGEN, B.; JAHR, O.; STORME, J.; SVERKHOLT, K.; ROYAL NORWEGIAN COUNCIL FOR SCIENTIFIC AND INDUSTRIAL RESEARCH.
"EXECUTIVE SUMMARY OF 'SCOM-1, A SATELLITE COMMUNICATION OCEANOGRAPHIC AND METEOROLOGICAL BUOY'." FEB. 71, ROYAL NORWEGIAN COUNCIL FOR SCIENTIFIC AND INDUSTRIAL RESEARCH, OSLO, NORWAY, TECH. MEMO.

*Abstract not in Volume 4.

- 248 NASA/ESSA
"EXECUTIVE SUMMARY OF 'NASA/ESSA HYDROLOGICAL COMMUNICATIONS EXPERIMENT'." OCT 68, NASA/ESSA, TECH. MEMO.
- 249 NATIONAL BUREAU OF STANDARDS
"EXECUTIVE SUMMARY OF 'PRECISE TIME TRANSFERS TO REMOTE LOCATIONS VIA VHF SATELLITE TRANSPONDER'." MAY 67, SATELLITE TRIANGULATION DIVISION, COAST AND GEODETIC SURVEY, NATIONAL BUREAU OF STANDARDS, BOULDER, COLORADO, TECH. MEMO.
- 250 HANSON, D.W.; HAMILTON, W.F.; GATTERER, L.E.; NATIONAL BUREAU OF STANDARDS
"EXECUTIVE SUMMARY OF 'NBS FREQUENCY AND TIME SATELLITE EXPERIMENT'." OCT 71, NATIONAL BUREAU OF STANDARDS, TECH. MEMO.
- 251 GENERAL DYNAMICS CONVAIR
"EXECUTIVE SUMMARY OF 'AN EXPERIMENT WITH VHF SATELLITE AND HF-SSB COMMUNICATIONS FOR DATA COLLECTION FROM OCEAN DATA STATIONS (BUOYS)'." APR 69, GENERAL DYNAMICS CONVAIR, TECH. MEMO.
- 252 HUDSON, HEATHER E.; STANFORD UNIVERSITY
"THE SATELLITE RADIO AND HEALTH IN THE VILLAGE: RESULTS OF A QUESTIONNAIRE FOR HEALTH AIDES." 1972; STANFORD UNIVERSITY, STANFORD, CALIF.
- * 253 KING, KENNETH L.; NATIONAL INSTITUTE OF EDUCATION
"SATELLITE TECHNOLOGY DEMONSTRATION." JULY 75, NATIONAL INSTITUTE OF EDUCATION, U.S. DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE, JOURNAL ARTICLE *** AUDIOVISUAL INSTRUCTION, PP. 38-39, JUNE/JULY 75.
- * 254 BURKE, J.R.; NORWOOD, F.W.; JOINT COUNCIL ON EDUCATIONAL TELECOMMUNICATIONS (JCET)
"SATELLITE DEVELOPMENTS AND THE ATS-6." MAY 75, JOINT COUNCIL ON EDUCATIONAL TELECOMMUNICATIONS, WASHINGTON, D.C., JOURNAL ARTICLE *** AUDIOVISUAL INSTRUCTION, PP. 12, 14-16, MAY 75.
- * 255 POLCYN, K.A.; ACADEMY FOR EDUCATIONAL DEVELOPMENT, INC.
"THE JOINT UNITED STATES-INDIA EDUCATIONAL BROADCAST SATELLITE EXPERIMENT." JUN 72, ACADEMY FOR EDUCATIONAL DEVELOPMENT, INC., JOURNAL ARTICLE *** EDUCATIONAL TECHNOLOGY, PP 14-17, JUN 72.
- * 256 POLCYN, K.A.; ACADEMY FOR EDUCATIONAL DEVELOPMENT, INC.
"THE PROPOSED BRAZILIAN EDUCATIONAL SATELLITE EXPERIMENT." JUN 72, ACADEMY FOR EDUCATIONAL DEVELOPMENT, INC., JOURNAL ARTICLE, *** EDUCATIONAL TECHNOLOGY, PP 20-25, JUL 72.
- * 257 COLTON, F.V.; UNIVERSITY OF KENTUCKY
"THE APPALACHIAN EDUCATION SATELLITE PROJECT." MAR 74, COLLEGE OF EDUCATION, UNIVERSITY OF KENTUCKY, JOURNAL ARTICLE *** AUDIOVISUAL INSTRUCTION, VOL. 19, NO. 3, PP. 6, 8-9, MAR 74***.
- 258 HANAS, O.J.; APPLIED INFORMATION INDUSTRIES
"EXECUTIVE SUMMARY OF 'L-BAND ATS-5--ORION--SS MANHATTAN MARINE NAVIGATION AND COMMUNICATION EXPERIMENTS'." JUN 70, APPLIED INFORMATION INDUSTRIES, MORRISTOWN, NEW JERSEY, TECH. MEMO. (NASA).

*Abstract not in Volume 4.

- 259 ANDERSON, R.E.
"EXECUTIVE SUMMARY OF 'FINAL REPORT ON PHASES I AND II VHF RANGING AND POSITION FIXING EXPERIMENT USING ATS SATELLITES', " 25 NOV 68 - 1 MAY 71, GENERAL ELECTRIC COMPANY, TECH. MEMO.
- 260 MARITIME ADMINISTRATION - US DEPARTMENT OF COMMERCE
"EXECUTIVE SUMMARY OF 'STUDY TO IMPROVE MARINE TRANSPORTATION THROUGH AEROSPACE ELECTRONICS', " JUN 71, US DEPARTMENT OF COMMERCE, MARITIME ADMINISTRATION, APPLIED INFORMATION INDUSTRIES, MORRISTOWN, NEW JERSEY, TECH. MEMO.
- 261 BARNIA, J.D. ; WESTWOOD, D.M.; HANAS, O.J.; USAF SPACE AND MISSILE SYSTEMS ORGANIZATION (SAMSQ) LOS ANGELES, CA
"EXECUTIVE SUMMARY OF 'SYSTEM 621B/ATS-5 SIGNAL DEMONSTRATION TEST, FINAL TECHNICAL REPORT', " FEB 71, USAF SPACE AND MISSILE SYSTEMS ORGANIZATION (SAMSQ), TECH. MEMO.
- 262 STANFORD UNIVERSITY
"EXECUTIVE SUMMARY OF 'IONOSPHERIC ELECTRON CONTENT', " AUG 71, STANFORD ELECTRONICS LABORATORIES, STANFORD UNIVERSITY, TECH. MEMO. (USAF SAMSQ).
- 263 APPLIED INFORMATION INDUSTRIES (AII)
"EXECUTIVE SUMMARY OF 'STUDY OF PRECISE POSITIONING AT L-BAND USING COMMUNICATIONS SATELLITES', " OCT 71, APPLIED INFORMATION INDUSTRIES, MORRISTOWN, NEW JERSEY, TECH. MEMO., (NASA WOLLOPS STATION).
- 264 NETHERLANDS POSTAL AND TELECOMMUNICATIONS SERVICES
"EXECUTIVE SUMMARY OF 'RESULTS OF MARITIME SATELLITE COMMUNICATIONS TESTS USING THE ATS-3', " FEB 71, NETHERLANDS POSTAL AND TELECOMMUNICATIONS SERVICES, TECH. MEMO.
- 265 POST OFFICE (UNITED KINGDOM)
"EXECUTIVE SUMMARY OF 'UNITED KINGDOM MARITIME SATELLITE COMMUNICATION TESTS', " DEC 70, THE UNIVERSITY COLLEGE OF SWANSEA, THE MARCONI COMPANY, THE POST OFFICE (UNITED KINGDOM) BERNHAM-ON-SEA, ENGLAND, TECH. MEMO.
- 266 ROYAL AIRCRAFT ESTABLISHMENT
"EXECUTIVE SUMMARY OF 'REPORT ON TESTS OF CHIRP MODULATED DATA TRANSMISSION FROM GROUND TO AIRCRAFT VIA SATELLITE ATS-3', " FEB 69, ROYAL AIRCRAFT ESTABLISHMENT, CANADA, TECH. MEMO.
- 267 U.S. COAST GUARD
"EXECUTIVE SUMMARY OF 'TECHNICAL DATA REPORT ON THE ATS PROGRAM', " FEB 69, US COAST GUARD, TECH. MEMO.
- 268 MARITIME ADMINISTRATION; WESTINGHOUSE ELECTRIC CORPORATION
"EXECUTIVE SUMMARY OF FINAL REPORT ON MARITIME MOBILE SATELLITE COMMUNICATIONS TESTS PERFORMED ON SS SANTA LUCIA', " JUL 68, WESTINGHOUSE ELECTRIC CORPORATION, TECH. MEMO.
- 269 STANLEY, G.H.; UNIVERSITY OF ALASKA
"CORRESPONDENCE FROM STANLEY TO R. MARSTEN.", DEC 1972, GEOPHYSICAL INSTITUTE, UNIVERSITY OF ALASKA.

- 270 DAROSA, A.V.; STANFORD UNIVERSITY
"MONTHLY PROGRESS REPORTS FOR ALASKA SATELLITE COMMUNICATIONS PROJECT." APR-JUN 1972, STANFORD UNIVERSITY, STANFORD, CALIFORNIA.
- 271 ANDERSON, C.; UNIVERSITY OF WASHINGTON
"SATELLITE TRANSMISSION OF LOW COST ECG SIGNALS." JUN 1972, UNIVERSITY OF WASHINGTON.
- * 272 FILEP, R.T.; WEDEMAYER, D.; UNIVERSITY OF SOUTHERN CALIFORNIA
"ANNOTATED BIBLIOGRAPHY ON COMMUNICATION SATELLITES FOR SOCIAL SERVICE: FOCUS ON USERS AND EVALUATION." AUG, 1975, UNIVERSITY OF SOUTHERN CALIFORNIA, LEARNING SYSTEMS CENTER, LOS ANGELES, CALIFORNIA.
- 273 BEATTIE, B.A.; LISTER HILL CENTER FOR BIOMEDICAL COMM.
"REPORT ON ALASKA BIOMEDICAL SATELLITE COMMUNICATION PROJECT." APR-JUN 1972, LISTER HILL CENTER FOR BIOMEDICAL COMMUNICATIONS, BETHESDA, MARYLAND.
- 274 WILLARD, H.R.; UNIVERSITY OF WASHINGTON
"TESTS OF SYSTEMS FOR MEDICAL COMMUNICATIONS VIA ATS-1." AUG 1973, UNIVERSITY OF WASHINGTON, DEPT OF ELECTRICAL ENGINEERING, SEATTLE, WASHINGTON.
- 275 REYNOLDS, D.K.; YARNELL, S.R.; UNIVERSITY OF WASHINGTON
"MONTHLY PROGRESS REPORTS ON SATELLITE PROJECT." FEB-JUL 1972, UNIVERSITY OF WASHINGTON, DEPT OF ELECTRICAL ENGINEERING, SEATTLE, WASHINGTON.
- 276 STODOL, P.T.; UNIVERSITY OF ALASKA
"MONTHLY PROGRESS REPORTS ON CONTRACT NIH 71-4712." JAN-JUL 1972, UNIVERSITY OF ALASKA, GEOPHYSICAL INSTITUTE, COLLEGE, ALASKA.
- 277 UNKNOWN
"REPORT ON ALASKA BIOMEDICAL COMMUNICATIONS EXPERIMENT." MAR 1971, UNKNOWN.
- 278 STANLEY, G.M.; UNIVERSITY OF ALASKA.
"SATELLITE TELECOMMUNICATIONS EXPERIMENTS." MAR 1972, UNIVERSITY OF ALASKA, GEOPHYSICAL INSTITUTE, COLLEGE, ALASKA.
- * 279 DIETRICH, E.O.; DEUTSCHE BUNDESPOST
"GROUND STATION STATUS." 1964, DEUTSCHE BUNDESPOST, REPUBLIC OF WEST GERMANY.
- 280 BYKOWSKI, RONALD F.; CALIFORNIA COUNCIL ON CRIMINAL JUSTICE; PROJECT SEARCH
"PROJECT SEARCH SATELLITE COMMUNICATIONS EXPERIMENT." 1972; SEARCH GROUP, INC., SACRAMENTO, CALIFORNIA.
- 281 KUNIMOTO, ELIZABETH N.; UNIVERSITY OF HAWAII
"SPEECH-COMMUNICATION INSTRUCTION BY SATELLITE." DEC 71; UNIVERSITY OF HAWAII, SPEECH-COMMUNICATION DEPT, HONOLULU, HAWAII.
- 282 AUBURN, F. M.; UNIVERSITY OF AUCKLAND
"REPORT ON AN EXPERIMENT IN THE TEACHING OF LAW BY SATELLITE." APR 74; UNIVERSITY OF AUCKLAND, AUCKLAND, NEW ZEALAND, JURIMETRICS JOURNAL, VOL 14, NR 3.

*Abstract not in Volume 4.

- 283 ZIPSER, E. J.; NATIONAL CENTER FOR ATMOSPHERIC RESEARCH
"THE ROLE OF ORGANIZED UNSATURATED CONVECTIVE DOWNDRAFTS IN THE STRUCTURE AND RAPID DECAY OF AN EQUATORIAL DISTURBANCE." OCT 69; NCAR, BOULDER, COLORADO, JOURNAL OF APPLIED METEOROLOGY, VOL 8, NR 5.
- 284 ZIPSER, E. J.; NATIONAL CENTER FOR ATMOSPHERIC RESEARCH
"THE LINE ISLANDS EXPERIMENT, ITS PLACE IN TROPICAL METEOROLOGY AND THE RISE OF THE FOURTH SCHOOL OF THOUGHT." DEC 70; NCAR, BOULDER, COLORADO, BULLETIN OF THE AMERICAN METEOROLOGICAL SOCIETY, VOL 51, NR 12.
- 285 HANSON, D. W.; HAMILTON, W. F.; NATIONAL BUREAU OF STANDARDS
"SATELLITE BROADCASTING OF WWV SIGNALS." SEP 74; NATIONAL BUREAU OF STANDARDS, BOULDER, COLORADO, JOURNAL ARTICLE *** IEEE TRANSACTIONS, VOL AES-10, NO 5, PP 562-573, SEP 74 ***.
- 286 WIGREN, H. E.; NATIONAL EDUCATION ASSOCIATION
"USING SATELLITE TECHNOLOGY TO INCREASE PROFESSIONAL COMMUNICATIONS AMONG TEACHERS." AUG 75; NEA, WASHINGTON, D.C.
- *287 BLACKMER, R. H.; WIEGMAN, E. J.; SEREBRENY, S. M.; MADFIELD, R. G.; STANFORD RESEARCH INSTITUTE
"ABSTRACTS OF FINAL REPORTS BY SRI CONCERNED WITH THE ANALYSIS OF ATS PHOTOGRAPHS TO OBTAIN CLOUD MOTION." 1969-71; SRI, MENLO PARK, CALIFORNIA.
- 288 SUTTON, R. W.; BOEING COMMERCIAL AIRPLANE CO.
"ATS-3 MULTIPATH/RANGING/DIGITAL DATA L-BAND EXPERIMENTAL PROGRAM." APRIL 73; BOEING COMMERCIAL AIRPLANE CO., P. O. BOX 3707, SEATTLE, WASHINGTON, 98124.
- 289 JEFFERSON, F. W.; NATIONAL AVIATION FACILITIES EXPERIMENTAL CENTER
"ATS-1 VHF COMMUNICATIONS EXPERIMENTATION." JUNE 70; NATIONAL AVIATION FACILITIES EXPERIMENTAL CENTER, ATLANTIC CITY, NEW JERSEY, 08405.
- 290 FAGER, J. A.; KINCADE, C. W.; CONVAIR/GENERAL DYNAMICS CORP.
"COMMUNICATIONS SATELLITE FOR ALASKA AND THE MOUNTAIN STATES." AIAA PAPER *** AIAA 3RD COMMUNICATIONS SATELLITE SYSTEMS CONFERENCE, NO 70-453, APR 1 1970 ***.
- 291 HANLEY, ANTHONY
"EXPERIMENTAL SATELLITE TELECOMMUNICATIONS NETWORKS IN THE PACIFIC HEMISPHERE" AUG 1974, CONFERENCE PAPER.
- 292 ANDERSON, R. E.; LAROSA, R. M.; GENERAL ELECTRIC AND EXXON CORP.
"EXPERIMENTAL EVALUATION OF SATELLITE COMMUNICATIONS AND POSITION FIXING FOR MARITIME USERS." JUN 1974; GENERAL ELECTRIC CO, SCHENECTADY, NEW YORK, EXXON CORP.
- 293 LAROSA, R. M.; EXXON CORP.
"THE BENEFITS AND APPLICATIONS OF MARITIME SATELLITES." 1974; EXXON CORP, NEW YORK, NEW YORK.
- 294 UNKNOWN; ARINC/AIRLINES
"CHRONOLOGICAL HISTORY OF AIRLINE SATELLITE COMMUNICATIONS TESTING WITH THE NASA APPLICATIONS TECHNOLOGY SATELLITES, ATS-1 AND ATS-3." UNKNOWN.
- 295 UNKNOWN; AERONAUTICAL RADIO, INC.
"ARINC/AIRLINES SATCOM PROGRAM." MAR 1968; AERONAUTICAL RADIO INC., ANNAPOLIS, MARYLAND.

*Abstract not in Volume 4.

- * 297 UNKNOWN; WELLINGTON POLYTECHNIC
"SATELLITE: THE PEACESAT BULLETIN." SEP 19, 1973; WELLINGTON, NEW ZEALAND.
- 298 LESTER, R. G.; DUKE UNIVERSITY MEDICAL CENTER
"TRANSMISSION OF RADIOLOGIC INFORMATION BY SATELLITE." DEC 1973; DUKE UNIV
ERSITY MEDICAL CENTER, DURHAM, NORTH CAROLINA, JOURNAL ARTICLE *** RADIOLO
GY, VOL 109, NO 3, PP 731-732, DEC 1973 ***.
- 299 ELLIOTT, J.; GENERAL ELECTRIC CO.
"LONG DISTANCE LIFE SAVER." OCT 1974; GENERAL ELECTRIC CO, RESEARCH AND DE
VELOPMENT CENTER, SCHEMECTADY, NEW YORK.
- 300 GOEBEL, W.; GERMANY
"UTILIZATION OF SIMPLE OMNIDIRECTIONAL VHF-ANTENNAE ON BOARD SHIPS FOR SAT
ELLITE RECEPTION, ELIMINATING THE MULTI-PATH EFFECTS THROUGH A DIVERSITY S
YSTEM." NOV 1971; DEUTSCHE LUFT-UND RAUMFAHRT, GERMANY.
- 301 FUJITA, T. T.; BRADBURY, O. L.; UNIVERSITY OF CHICAGO
"DETERMINATION OF MASS OUTFLOW FROM A THUNDERSTORM COMPLEX USING ATS-3 PIC
TURES." APR 1969; UNIVERSITY OF CHICAGO, DEPT. OF GEOPHYSICAL SCIENCES, CH
ICAGO, ILLINOIS.
- 302 NINOMIYA, K.; UNIVERSITY OF CHICAGO
"DYNAMICAL ANALYSIS OF OUTFLOW FROM TORNADO-PRODUCING THUNDERSTORMS AS REV
ELED BY ATS-3 PICTURES." DEC 1969; UNIVERSITY OF CHICAGO, DEPT. OF GEOPHY
SICAL SCIENCES, CHICAGO, ILLINOIS.
- 304 FUJITA, T. T.; UNIVERSITY OF CHICAGO
"USE OF ATS PICTURES IN HURRICANE MODIFICATION." AUG 1972; UNIV. OF CHICAG
O, ILLINOIS.
- 305 YUN-MEI CHANG; UNIVERSITY OF CHICAGO
"ANALYSIS OF ANVIL GROWTH FROM ATS PICTURES." JUL 1974; UNIV. OF CHICAGO,
DEPT OF GEOPHYSICAL SCIENCES, CHICAGO, ILLINOIS.
- 306 HIRST, D.; MINISTRY OF TECHNOLOGY
"VHF TRANS-IONOSPHERIC PROPAGATION MEASUREMENTS." AUG 1968; MINISTRY OF TE
CHNOLOGY, RADIO DEPT., ROYAL AIRCRAFT ESTABLISHMENT, FARNBOROUGH, HANTS, E
NGLAND.
- 307 BARNES, G. W.; JAMES, D. J.; MINISTRY OF TECHNOLOGY
"TESTS OF CHIRP MODULATED DATA TRANSMISSIONS FROM GROUND (MOBILE) TO AN AI
RCRAFT VIA SATELLITE ATS-3." MAR 1969; MINISTRY OF TECHNOLOGY, ROYAL AIRCR
AFT ESTABLISHMENT, FARNBOROUGH, HANTS, ENGLAND.
- 308 UNKNOWN; SPENBLY LIMITED
"IONOSPHERIC SCINTILLATION MEASUREMENT." 1969; SPENBLY LIMITED, ENHAM ARCH
, NEWBURY ROAD, ANDOVER, HANTS, ENGLAND.
- 309 PONNAPPA, S.; COMMUNICATIONS RESEARCH CENTRE
"L-BAND POWER SPECTRUM OF IONOSPHERIC FADING SIGNALS." NOV 1973; COMMUNICA
TIONS RESEARCH CENTRE, OTTAWA, CANADA.
- 310 MCMECHAN, P.; UNIVERSITY OF THE SOUTH PACIFIC
"TEACHING BY SATELLITE: PACIFIC ISLANDS JOIN IN EXPERIMENTAL PROJECT." 197
5, UNIVERSITY OF THE SOUTH PACIFIC, SUVA, FIJI.

*Abstract not in Volume 4.

- 311 RENSTEAD, G.; NORTHCOTT, D.; MCNECHAN, P.; UNIVERSITY OF THE SOUTH PACIFIC
"SATELLITE COMMUNICATION PROJECT: EXPERIMENTAL YEAR ONE," APR 1975, UNIVERSITY OF THE SOUTH PACIFIC, LAUCALA BAY, SUVA, FIJI.
- 312 POLCYN, K.A.
"AN EDUCATOR'S GUIDE TO COMMUNICATION SATELLITE TECHNOLOGY" APR 1975, BOOK.
- 313 POLCYN, K.A.
"SOME POTENTIAL LEARNING COMMUNITY COMPETITORS FOR THE USE OF THE ALLOCATED BROADCAST SATELLITE FREQUENCY SPECTRUM" JUN 1975, PAPER.
314. HONMEMOOD, M.I.; DEPT. OF SUPPLY
"AUSTRALIAN POST OFFICE PROPOSED EXPERIMENTS FOR ATS PROGRAM." AUG 1967, DEPARTMENT OF SUPPLY, MELBOURNE, AUSTRALIA.
- 315 WEDEMEYER, C. A.; UNIVERSITY OF WISCONSIN
"THE NEXT FRONTIER: POTENTIALS AND PROBLEMS OF INTERNATIONAL-INTERCULTURAL EDUCATION VIA SATELLITES." JAN 1969; UNIVERSITY OF WISCONSIN, MADISON, WISCONSIN, TEXT OF ADDRESS.
- 316 WEDEMEYER, C. A.; UNIVERSITY OF WISCONSIN
"EDSAT: A PLAN FOR EDUCATIONAL DIFFUSION AND THE SOCIAL APPLICATION OF SATELLITE TELECOMMUNICATIONS." 1969; UNIVERSITY OF WISCONSIN, MADISON, WISCONSIN, PROPOSAL.
- * 317 WEDEMEYER, C. A.; UNIVERSITY OF WISCONSIN
"EDSAT: WHAT, WHY, HOW." JUL 1969; UNIVERSITY OF WISCONSIN, MADISON WISCONSIN, PROPOSAL.
- * 318 JAFFE, L.
"COMMUNICATION IN SPACE." MUNT, RINEHART, AND WINSTON, INC.,.
- * 319 NASA/GODDARD SPACE FLIGHT CENTER
"SYNCOM ENGINEERING REPORT", VOLUME 1, NASA DOC. NO. X-621-64-167, NASA.
- * 320 FAA
"INVESTIGATION OF AIRBORNE VOR RECEIVER INTERFERENCE CAUSED BY SATCOM TRANSMISSIONS ABOARD THE AIRCRAFT", DATA REPORT NO. 2, FAA TEST AND EVALUATION DIVISION, PROJECT NO. 221-160-02X, APRIL 1968.
- * 321 FAA
"SATELLITE COMMUNICATIONS EXPERIMENTATION", DATA REPORT NO. 1, FAA TEST AND EVALUATION DIVISION, PROJECT NO. 221-160-02X, SEPT. 1967.
- * 322 UNKNOWN
"AIRBORNE VHF COMMUNICATIONS TRANSCEIVER AND MARK 1 VHF SATELLITE COMMUNICATIONS (SATCOM) SYSTEM", AIRINC CHARACTERISTIC 566. FIRST RELEASED IN AEEC LETTER 68-1-49, MAY 13, 1968.
- * 323 APPLIED INFORMATION INDUSTRIES
"STUDY TO IMPROVE MARINE TRANSPORTATION THROUGH AEROSPACE ELECTRONICS-VOLUME II", MARINE DATA COMMUNICATIONS DEMONSTRATION TEST PROGRAM. REPORT PREPARED FOR U.S. MARITIME ADMINISTRATION BY APPLIED INFORMATION INDUSTRIES, JUNE 15, 1971.
- * 324 UNIVERSITY COLLEGE OF SWANSEA; MARCONI COMPANY
"UNITED KINGDOM MARITIME SATELLITE COMMUNICATION TESTS", PREPARED FOR THE AD HOC UNITED KINGDOM MARITIME SATELLITE TESTS COMMITTEE. AUG.-DEC. 1970.
- * 325 CUIEL, AE DA SILVA
"RESULTS OF MARITIME SATELLITE COMMUNICATIONS TESTS USING ATS-3", REPORT 2 77RC2 NETHERLANDS POSTAL AND TELECOMMUNICATIONS SERVICES, DR. NEHER LAPORATORY, AUGUST 1971.

*Abstract not in Volume 4.

- *316 NASA/GODDARD SPACE FLIGHT CENTER
"OMEGA EXPERIMENT", GSFC REPORT NO. X-733-67-266, JUNE 1967.
- *327 COMPUTER SCIENCES CORP.
"OMEGA EXPERIMENTATION SUMMARY", REPORT NO. 4031-19, NASA CONTRACT NO. NAS 5-11672, FEB. 1971.
- *328 TEXAS INSTRUMENTS, INC.
"FINAL REPORT FOR OMEGA POSITION LOCATION EQUIPMENT VERY HIGH VELOCITY TEST", NASA CONTRACT NO. NAS 5-10248, REPORT NO. 18, TEXAS INSTRUMENTS, INC., JULY 1969.
- *329 TEXAS INSTRUMENTS, INC.
"FINAL REPORT FOR OMEGA POSITION LOCATION EQUIPMENT VERY HIGH VELOCITY TEST", NASA CONTRACT NO. NAS 5-10248, ADDENDUM NO. 1, REPORT NO. 18A, TEXAS INSTRUMENTS, INC., AUGUST 1969.
- *330 TEXAS INSTRUMENTS, INC.
"VHF NAVIGATION EXPERIMENT", FINAL REPORT FOR PERIOD SEPTEMBER 1969 TO DECEMBER 1971, NASA CONTRACT NO. NAS 5-21079, FINAL REPORT U9-832400-F, TEXAS INSTRUMENTS, INC., DALLAS, TEXAS, MAY 1971.
- *400 CORRIGAN, J.P.
"THE ATS VHF EXPERIMENT FOR AIRCRAFT COMMUNICATION." APRIL 1967, GODDARD SPACE FLIGHT CENTER, TECH. REPORT (NASA).
- *401 GOEBEL, W.
"PARTICIPATION IN THE EXPERIMENTS WITH THE U.S. NAVIGATION SATELLITE ATS-3." JUNE, 1968 .
- *402 WISHNA, S.
"WEFAX - WEATHER DATA RELAY COMMUNICATIONS EXPERIMENT." SEPT. 1968 . GODDARD SPACE FLIGHT CENTER, WASHINGTON, D.C., RECORD.
- *403 TRW SPACE LOG
"APPLICATIONS SATELLITES - AN INTRODUCTORY BIBLIOGRAPHY." FALL 1968.
- *404 ENGE, F.J.
"APPLICATIONS OF OMEGA POSITION LOCATION EXPERIMENT TO MASS TRANSPORTATION ." INSTITUTE OF NAVIGATION, N.Y., JUNE 1969 .
- *405 CRAWFORD, W.R.
"SAR - SATELLITE ALARM RESCUE ." U.S. NAVAL AIR TEST CENTER, PATUXENT RIVER, MD., SEPT. 1970 .
- *406 ANDERSON, R.E.
"RESULTS OF AN EXPERIMENT TO LOCATE AND READ DATA FROM UNMANNED TRANSPONDERS USING SATELLITES." GENERAL ELECTRIC CO., SCHENECTADY, N.Y., APRIL 1971.
- *407 RUBIN, P.A.
"SATELLITES FOR EDUCATION ." HUGHES AIRCRAFT CO., EL SEGUNDO, CALIF. OCT. 1968 .
- *408 KAVANAU, L.L.
"PRACTICAL SPACE APPLICATIONS." AMERICAN ASTRONAUTICAL SOCIETY, NATIONAL MEETING, SAN DIEGO, CALIF. FEB. 1966. PROCEEDINGS.

*Abstract not in Volume 4.

- *409 WARNECKE, G. ; SUNDERLIN, W.S.
"THE FIRST COLOR PICTURE OF THE EARTH TAKEN FROM THE ATS-3 SATELLITE." NAS
A-GSFC. FEB. 1968.
- *410 FREEMAN, J.J. ; MAGUIRE, J.J.
"ON THE VARIETY OF PARTICLE PHENOMENA DISCERNIBLE AT THE GEOSTATIONARY ORB
IT VIA THE ATS-1 SATELLITE." RICE UNIV., HOUSTON, TEXAS. 1968.
- *411 MITRA, A.P. ; JACCHIA, L.G. ; NEWMAN, W.S.
"SPACE RESEARCH VIII ; PROCEEDINGS OF THE TENTH COSPAR PLENARY MEETINGS, I
MPERIAL COLLEGE OF SCIENCE AND TECHNOLOGY, LONDON, ENGLAND." JULY 1967.
- *412 KURODA, Y.
"INTERNATIONAL SYMPOSIUM ON SPACE TECHNOLOGY AND SCIENCE, 7TH, TOKYO, JAPA
N. MAY 1967. PROCEED NGS."
- *413 JESPERSEN, J.L. ; KANAS, G. ; GATTERER, L.E.
"SATELLITE VHF TRANSPONDER TIME SYNCHRONIZATION." NATIONAL BUREAU OF STAND
ARDS. JULY 1968.
- *414 LUNC, M.
"APPLICATION SATELLITES; INTERNATIONAL ASTRONAUTICAL FEDERATION, INTERNATI
ONAL ASTRO. CONGRESS, 17TH, MADRID, SPAIN. PROCEEDINGS. OCT. 1966.
- *415 SUOMI, V.E.; VONDER HAAR, T.H.
"GEOSYNCHRONOUS METEOROLOGICAL SATELLITE." UNIV. OF WISCONSIN. OCT. 1968.
- *416 JAFFE, L.
"INTERNATIONAL EXPERIMENTATION WITH COMMUNICATIONS SATELLITES." NASA, OFFI
CE OF SPACE SCIENCE AND APPLICATIONS, WASH. D.C. AUG. 1968.
- *417 FELISKE, D. ; BARDEI, G.
"DETERMINATION OF THE TOTAL NUMBER OF ELECTRONS IN THE IONOSPHERE FROM THE
FARADAY EFFECT WITH THE AID OF SIGNALS FROM THE ATS-3 SATELLITE." EAST GE
RMANY. 1968.
- *418 RADOS, R.M.
"ATMOSPHERIC MEASUREMENTS FROM SATELLITES." NASA - GSFC. JAN. 1969.
- *419 UNKNOWN
"ACTIVE COMMUNICATION- SATELLITE EXPERIMENTS - RESULTS OF TESTS AND DEMONS
TRATIONS." INTERIM MEETING OF STUDY GROUP IV, GENEVA, SWITZERLAND. SEPT. 1
968.
- *420 GATTERER, L.E. ; BOTTONE, P.W. ; MORGAN, A.H.
"WORLD-WIDE CLOCK SYNCHRONIZATION USING A SYNCHRONOUS SATELLITE." NBS BOUL
DER, COLORADO. JUNE 1968.
- *421 UNKNOWN
"CONTRIBUTIONS TO METEOROLOGICAL SATELLITE RESEARCH." METEOROLOGISCHE ABHA
NDLUNGEN, 1968.
- *422 FUJITA, T.T.
"PRESENT STATUS OF CLOUD VELOCITY COMPUTATIONS FROM THE ATS-1 AND ATS-3 SA
TELLITES." DEPT. OF GEOPHYSICAL SCIENCE, UNIV. OF CHICAGO. MAY 1968.

*Abstract not in Volume 4.

- *423 SUGURI, Y. ; ONI, H. ; METZGER, E.
"A TOMA/PCM EXPERIMENT ON APPLICATIONS TECHNOLOGY SATELLITES." INTERNATIONAL CONFERENCE OF COMMUNICATIONS, BOULDER, COLO. JUNE 1969.
- *424 RASCHKE, E. ; RANDEEN, W.R.
"OBSERVATIONS OF THE REFLECTION PROPERTIES OF THE EARTH-ATMOSPHERE SYSTEM AND THE CLOUD FORMATION ABOVE THE EQUATORIAL PACIFIC FROM A SYNCHRONOUS SATELLITE," APR. 1968.
- *425 WISHNA, S.
"OBSERVATIONS ON VHF COMMUNICATIONS BETWEEN A SYNCHRONOUS SATELLITE RELAY AND EARTH GROUND STATIONS." NASA-GSFC. SEPT. 1969.
- *426 MATTHEWS, G.E.
"THE WEATHER SATELLITE PROGRAM," FEB. 1970.
- *427 SUOMI, V.E.
"THE SPIN CLOUD CAMERA." UNIV. OF WISCONSIN. DEC. 1966.
- *428 PAGE, D.E.
"INTERCORRELATED SATELLITE OBSERVATIONS RELATED TO SOLAR EVENTS; EUROPEAN SPACE RESEARCH ORGANIZATION, SYMPOSIUM." ESRO, NOORDWIJK, NETHERLANDS. SEP T. 1969.
- *429 U.S. AIR FORCE
"SYMPOSIUM ON THE APPLICATION OF ATMOSPHERIC STUDIES TO SATELLITE TRANSMISSIONS." BOSTON, MASS. PROCEEDINGS. SEPT. 1969.
- *430 AARONS, J. ; MULLEN, J.P.
"THE RELATIONSHIP OF HIGH LATITUDE SCINTILLATIONS TO VHF SYNCHRONOUS SATELLITE COMMUNICATIONS." USAF - BEDFORD, MASS. 1970.
- *431 SCHRICK, K.W. ; GOEBEL, W.
"RESULTS OF EXPERIMENTS USING DISTANCE MEASUREMENTS OF SATELLITE ATS-3." EUROPEAN NAVIGATION INSTITUTE. MAY 1970.
- *432 VANMEN, C.M. ; MCCORMICK, F.L.
"ATS MILLIMETER WAVE PROPAGATION EXPERIMENT." MARTIN MARIETTA CORP. NOV. 1970.
- *433 ALLEN, R.S. ; AARONS, J.
"SCINTILLATION BOUNDARY DURING QUIET AND DISTURBED MAGNETIC CONDITIONS." USAF, CAMBRIDGE RESEARCH LABORATORIES, BEDFORD, MASS. JAN. 1971.
- *434 LEVANDON, N.
"DETERMINATION OF THE SEA SURFACE SLOPE DISTRIBUTION AND WIND VELOCITY USING SUN GLITTER VIEWED FROM A SYNCHRONOUS SATELLITE." TEL AVIV UNIV., ISRAEL. JULY 1971.
- *435 NASA, WASH. D.C.
"COMMUNICATIONS SATELLITES." 1963.
- *436 ANDRUS, A.M.G.
"STABILIZATION REQUIREMENTS FOR COMMUNICATION AND NAVIGATION SATELLITES." NASA, WASH. D.C. 1966.

*Abstract not in Volume 4.

- *438 VANATTA, L.C.
"COMMUNICATIONS AND NAVIGATION SATELLITES AS AERONAUTICAL AIDS." NASA- ELE
CTRONICS RESEARCH CENTER, CAMBRIDGE, MASS. 1967.
- *439 LAIDS, S.C.
"REMARKS ON ATS TIME SYNCHRONIZATION." NASA-GSFC, 1968.
- *440 NATIONAL ACADEMY OF SCIENCES
"USEFUL APPLICATIONS OF EARTH-ORIENTED SATELLITES - METEOROLOGY," NATIONAL
RESEARCH COUNCIL, WASH. D.C. 1969.
- *441 SUDHI, V.E.
"METEOROLOGICAL SATELLITE INSTRUMENTATION AND DATA PROCESSING." WISCONSIN
UNIV., MADISON. 1958-1963.
- *442 CONTROL DATA CORP.
"SELF-CONTAINED NAVIGATION EXPERIMENT." MINNEAPOLIS, MINN., EDINA SPACE AN
D DEFENSE SYSTEMS, JULY 1969.
- *443 LAUGHLIN, C.R.
"THE RELAY OF OMEGA NAVIGATION SIGNALS BY SATELLITE TO A CENTRAL PROCESSIN
G FACILITY." NASA-GSFC. JAN. 1970.
- *444 MULLENS, J.P.
"VHF ATMOSPHERIC STUDIES AND COMMUNICATIONS AND NAVIGATION SYSTEMS." ADVIS
ORY GROUP FOR AEROSPACE RESEARCH AND DEVELOPMENT, PARIS, FRANCE. AUG. 1969
- *445 NASA/GODDARD SPACE FLIGHT CENTER
"WORLDWIDE VHF SATELLITE SCINTILLATION/FADING TESTS: ATS PROJECT." APR. 19
70.
- *446 NATIONAL ENVIRONMENTAL SATELLITE CENTER
"SATELLITE AND SENSORS FLOWN IN ORBIT, APPENDIX A." WASH. D. C. , JUL. 197
0.
- *447 KLOBUCHAR, J.A.
"INTRODUCTION TO VHF SATELLITE NAVIGATION AND COMMUNICATIONS SYSTEMS." AIR
FORCE CAMBRIDGE RESEARCH LABS., BEDFORD, MASS. NOV. 1970.
- *448 FINK, D.J. ; ANDERSON, R.E.
"PROGRESS AND GOALS FOR AERONAUTICAL APPLICATIONS OF SPACE TECHNOLOGY." GE
NERAL ELECTRIC CO., PHIL., PA. MISSILE AND SPACE DIV. SEPT. 1970.
- *449 SNARE, R.C.
"A MAGNETOMETER EXPERIMENT FOR THE APPLICATIONS TECHNOLOGY SATELLITE." UCL
A- INST. OF GEOPHYSICS AND PLANETARY PHYSICS. DEC. 1966.
- *450 GREAVES, J. R. ; WISHNA, S.
"SOLAR EFFECTS ON VHF COMMUNICATIONS BETWEEN A SYNCHRONOUS SATELLITE RELAY
AND EARTH GROUND STATIONS." NASA-GSFC. APR. 1969.
- *451 KISSEL, F.
"L-BAND PERFORMANCE CHARACTERISTICS OF THE ATS-5 SPACECRAFT." NASA-GSFC. M
AY 1970.

*Abstract not in Volume 4.

- *452 LOCKHEED MISS. AND SPACE CO.
"LOCKHEED EXPERIMENT ON ATS-5." FEB. 1970.
- *453 FUJITA, T.T.
"AIRCRAFT, SPACECRAFT, SATELLITE AND RADAR OBSERVATIONS OF HURRICANE GLADYS, 1968." CHICAGO UNIV. MAY 1970.
- *454 NASA/GODDARD SPACE FLIGHT CENTER
"SHF COMMUNICATIONS SYSTEM PERFORMANCE ON ATS, VOLUME 2, DATA AND ANALYSIS." AUG. 1970.
- *455 ROSENBAUM, B. ; RAMASASTRY, J. ; SCHMID, P.E., JR.
"VERY LONG BASELINE INTERFEROMETER (VLBI) EXPERIMENTS USING ATS-3 AND ATS-5 SATELLITES." NASA-GSFC. NOV. 1970.
- *456 STRICKLAND, J.I. ; DAY, J.W.B.
"MICROWAVE ATTENUATION MEASUREMENTS USING THE ATS-5 SATELLITE." COMMUNICATIONS RESEARCH CENTER, OTTAWA, ONTARIO. FEB. 1971.
- *457 MUELLER, E.J.
"ABSORPTION EFFECT ON VHF PROPAGATION BETWEEN SYNCHRONOUS SATELLITE AND AIRCRAFT." WESTINGHOUSE ELECTRIC CORP. BALT., MD. DEC. 1970.
- *458 HILTON, G.E. ; HOLLENBAUGH, R. ; LAUGHLIN, C.R. ; LAVIGNE, R.
"METEOROLOGICAL EXPERIMENT USING THE OMEGA SYSTEM FOR POSITION LOCATION." NASA - GSFC. 1965.
- *459 HILTON, G.E.
"OMEGA LOCATION AND SATELLITE REPORTING FOR WORLD-WIDE OBSERVATION SYSTEMS." NASA - GSFC. OCT. 1965.
- *460 BELLER, W.S.
"ATS PROJECT SEEKS PRACTICAL PAYOFFS." MARCH 1966.
- *461 NICHOLS, G.B.
"THE MILLIMETER WAVE PROPAGATION EXPERIMENT FOR THE ATS-E SPACECRAFT." NASA - GSFC. NOV. 1966.
- *462 DEZOUTE, O.J. ; SMITH, W. ; BAKER, R. ; BARTON, T.
"VHF GROUND-TO-AIRCRAFT COMMUNICATION TESTS FOR AIR TRAFFIC CONTROL WITH FEDERAL AVIATION AGENCY PARTICIPATION." FAA. FEB. 1966.
- *463 FAA - SYSTEMS R&D SERVICE
"ATS-1 FAA EXPERIMENTATION, INTERIM REPORT NO. 1." DEC. 1966-JAN. 1967.
- *464 BOUCHER, R.A.
"VHF SATELLITES FOR MARITIME MOBILE COMMUNICATIONS." HUGHES AIRCRAFT CO., SPACE SYSTEMS DIVISION. MAY 1967.
- *465 CARDULLO, M.W.
"MARITIME SATELLITE SERVICE: POSSIBLE APPLICATIONS." COMMUNICATIONS SATELLITE CORP., WASH. D.C., MAY 1967.
- *466 PAREDES, A.E.
"VHF SATELLITE FOR MARINE COMMUNICATION." COMMUNICATIONS COMPANY INC., CORAL GABLES, FLA. MAY 1967.

*Abstract not in Volume 4.

- *467 HEMPTON, CAPT. G.F. ; GOWARD, LCDR R.F. ; ALEXANDER, LTJG J. O.
"PRELIMINARY REPORT OF THE VHF-FM SATELLITE COMMUNICATION TEST CONDUCTED A
BOARD THE U.S. COAST GUARD CUTTER KLAMATH." U.S.C.G. MAY 1967.
- *468 WESTINGHOUSE DEFENSE AND SPACE CENTER
"ATS COMMUNICATION INTEGRATION MOJAVE GROUND STATION, FINAL REPORT." JUNE
1967.
- *469 FALTER, J.W. ; UHRIG, J.W.
"HELICOPTER COMMUNICATIONS TEST PROGRAM PART I, VHF COMMUNICATIONS VIA ATS
-1 SATELLITE RELAY." AIR FORCE AVIONICS LAB, WPAFB, OHIO. OCT. 1967.
- *470 DEHN, G.E.
"DATA ACQUISITION, REDUCTION AND ANALYSIS FOR THE ATS COMMUNICATION SYSTEM
." WESTINGHOUSE ELECTRIC CORP. 1967.
- *471 WESTINGHOUSE DEFENSE AND SPACE CENTER
"SMALL USER USE OF THE ATS MULTIPLE ACCESS SHF TRANSPONDER." BALTIMORE, MD
. NASA - GSFC. MAY 1967.
- *472 WARE, J.N.
"VHF SHIPBOARD TESTS ON U.S. COAST GUARD CUTTER GLACIER, FINAL REPORT." U.
S.C.G., WASHINGTON RADIO STATION, ALEXANDRIA, VA. MAY 1968.
- *473 AERONAUTICAL RADIO, INC.
"SIGNIFICANT OBSERVATIONS AND RESULTS DURING SATCOM TESTS WITH TWA-OCT. 19
68., ARINC/AIRLINES SATCOM PROGRAM.
- *474 JOHNSON, M.R. ; WARE, J.N.
"VHF SHIPBOARD TESTS FROM OCEAN STATION BRAVO." U.S.C.G., WASHINGTON RADIO
STATION, ALEXANDRIA, VA. OCT. 1968.
- *475 WARE, J.N.
"VHF SHIPBOARD TESTS FROM OCEAN STATION DELTA." U.S.C.G., WASHINGTON RADIO
STATION, ALEXANDRIA, VA. JAN. 1969.
- *476 MUELLER, E.J.
"THE STATUS OF SATELLITE COMMUNICATION FOR THE MARITIME MOBILE SERVICES."
WESTINGHOUSE ELECTRIC CORP., BALT., MD. APRIL 1969.
- *477 ANDERSON, R.E.
"VHF PROPAGATION EFFECTS ON RANGE MEASUREMENTS FROM SATELLITES." GENERAL E
LECTRIC CO., SCHENECTADY, N.Y. SEPT. 1969.
- *478 KEANE, L.M.
"A MULTIPLE USER SATELLITE SYSTEM FOR NAVIGATION AND TRAFFIC CONTROL." NAS
A ELECTRONICS RESEARCH CENTER, CAMBRIDGE, MASS., OCT. 1969.
- *479 CHENEY, L.A. ET. AL.
"SATELLITE / BUOY READOUT PROGRAM." GENERAL ELECTRIC RE-ENTRY AND ENVIRONM
ENTAL SYSTEMS DIVISION, DEC. 1969.
- *480 RICCOMI, A.
"TRANSMISSIONS TO EUROPE FROM THE OLYMPICS GAMES IN MEXICO." IEEE ABSTRACT
S, NOV. 1969.

*Abstract not in Volume 4.

- * 481 NASA
"SUMMARY OF U.K. EXPERIMENTS CONDUCTED WITH ATS-3." MINUTES, GROUND STATION COMMUNICATION MEETING, LONDON, ENGLAND, APRIL 1970.
- * 482 NASA
"REPORT ON TELECOMMUNICATIONS IN FRANCE." MINUTES, GROUND STATION COMMITTEE MEETING, LONDON, ENGLAND, APRIL 1970.
- * 483 ANDERSON, R.E.
"RESULTS OF MARINE POSITION FIXING EXPERIMENTS USING ATS SATELLITES." GENERAL ELECTRIC CO., APRIL 1970.
- * 484 NORTHERN ELECTRIC CO. LTD.
"REPORT ON PATTERN AND RECEPTION CHARACTERISTICS RECORDED USING ATS-3 IN CONJUNCTION WITH AN EXPERIMENTAL EARTH STATION AT CRYSTAL BEACH, OTTAWA, ONTARIO, CANADA." MINUTES, GROUND STATION COMMITTEE MEETING, LONDON, ENGLAND, MAY 1970.
- * 485 ANDERSON, R.E.
"RANGING AND POSITION FIXING EXPERIMENTS USING SATELLITES: 24 HOUR RANGING TEST, MARCH 1970." GENERAL ELECTRIC CO., SCHENECTADY, N.Y., JUNE 1970.
- * 486 C.C.I.R. STUDY GROUP IV0/XIII
"L-BAND MARINE NAVIGATION AND COMMUNICATIONS EXPERIMENT." DRAFT REPORT, JULY 1970.
- * 487 NASA/GODDARD SPACE FLIGHT CENTER
"MILLIMETER-WAVE PROPAGATION EXPERIMENTS UTILIZING THE ATS-5 SATELLITE." NOV. 1970.
- * 488 KASHIMA EARTH STATION
"BROADCASTING SATELLITE SERVICE (TELEVISION) FOR COMMUNITY RECEPTION, A TIME DIVISION MULTIPLEX TRANSMISSION SYSTEM OF TELEVISION SOUND USING COLOR SYNC SIGNAL IN COMMON." JAPAN, OCT. 1970.
- * 489 MAZUR, W.E., JR. ; BARBIERE, D.
"SUBMICROSECOND TIME SYNCHRONIZATION OF GROUND STATIONS VIA THE APPLICATIONS TECHNOLOGY SATELLITES." NASA - GSFC, APRIL 1971.
- * 491 RADIO RESEARCH LABORATORIES
"A SIGNALLING SYSTEM FOR DEMAND ASSIGNMENT COMMUNICATION SYSTEM." JAPANESE MINISTRY OF POST AND TELECOMMUNICATIONS. 1971.
- * 492 WESTINGHOUSE ELECTRIC CORP.
"ENVIRONMENTAL MEASUREMENTS EXPERIMENT ON THE APPLICATIONS TECHNOLOGY SATELLITE (MISSIONS ATS-A AND ATS-B) ." AUG. 1966.
- * 493 BARTON, T.H.
"SATELLITE COMMUNICATIONS EXPERIMENTATION , FAA VHF EXPERIMENT." TEST AND EVALUATION DIVISION, COMMUNICATIONS BRANCH, FAA. MAY 1967.
- * 494 STANFORD UNIVERSITY
"RADIO PROPAGATION STUDIES OF THE IONOSPHERE." SEPT. 1967.

*Abstract not in Volume 4.

- *495 VONDER HAAR, T.H. ; HANSON, K. ; SUOMI, V.E.; SHAFRIR, U.
"PHENOMENOLOGY OF CONVECTIVE RING CLOUDS IN THE TROPICS DERIVED FROM GEOSY
NCHRONOUS SATELLITES OBSERVATIONS." UNIV. OF WISCONSIN, 1967.
- *496 SUOMI, V.E.
"CONTINUOUS OBSERVATION OF WEATHER MOTION." UNIV. OF WISCONSIN, JUNE 1968.
- *497 VONDER HAAR, T.H.
"METEOROLOGICAL APPLICATIONS OF REFLECTED RADIANCE MEASUREMENTS FROM ATS -
1 AND ATS - 3 ." UNIV. OF WISCONSIN, 1968.
- *498 HUBERT, L.F.
"METEOROLOGICAL SATELLITE." 1968.
- *499 ELKINS, T.J.
"HORIZON STUDIES OF ATS-1 BEACON SIGNALS." USAF CAMBRIDGE RESEARCH LABS, B
EDFORD, MASS.
- *500 AARONS, J.
"BEACON STUDIES OF ATS-3 IN NORTH AND SOUTH AMERICA." USAF CAMBRIDGE RESEA
RCH LABS, BEDFORD, MASS.
- *501 AARONS, J. ; MULLEN, J.P.; ZUCKERMAN, L.
"SYNCHRONOUS SATELLITE SIGNALS AT 137 MHZ AS OBSERVED FROM THULE, GREENLAN
D." USAF CAMBRIDGE RESEARCH LABS., JULY 1969.
- *502 LEVATICH, J.L.
"ATS-5 MM WAVE PROPAGATION EXPERIMENT." COMSAT LABS., APRIL 1970.
- *503 BARNIA, J.D. ; KRATZER, D.L.
"COMMUNICATIONS AND NAVIGATION EXPERIMENTS AT L-BAND USING ATS-5." APPLIED
INFORMATION INDUSTRIES, MOORESTOWN, N.J., APRIL 1970.
- *504 FUJITA, T.T.
"THE LUBBOCK TORNADOES: A STUDY OF SUCTION SPOTS." UNIV. OF CHICAGO, AUGUS
T 1970.
- *505 BARBIERE, D. ; MARTEL, R. ; DIPIETRO, J.
"PSEUDO NOISE RANGING WITH ATS SATELLITES." WESTINGHOUSE ELECTRIC CORP., B
ALT., MD., SEPT. 1970.
- *506 MAYNARD, L.A.
"HIGH LATITUDE PERFORMANCE OF MILITARY SATELLITE COMMUNICATION SYSTEMS." C
OMMUNICATIONS RESEARCH CENTER, OTTAWA, CANADA, 1970.
- *507 DEFOREST, S.E.
"POTENTIALS ON THE ATS-5 SATELLITE AND THEIR USE IN PLASMA STUDIES." UNIV.
OF CALIF., S.O. , 1970.
- 508 WHALEN, A. A.
"HEALTH EDUCATION TELECOMMUNICATIONS EXPERIMENT." OCT 1975, ELECTRONICS AND
AEROSPACE SYSTEMS CONVENTION WASHINGTON, D.C., PAPER, 76A 40676.

*Abstract not in Volume 4.

- 509 BODR, JOHN L.; BRAUNSTEIN, JEAN; JANKY, JAMES M.; JODGEN, DAIL; PUTTER, JAMES G.; HARPER, E. LEE; VOLKMER, ELDON; WHALEN, ALBERTA A.; HENDERSON, EARL; HOFF, HOWARD H. "TECHNICAL ASPECTS OF THE HEALTH-EDUCATION TELECOMMUNICATIONS EXPERIMENT." NOV 1975, UNIVERSITY OF WASHINGTON, SEATTLE, WASHINGTON, JOURNAL ARTICLE, 76A-1 7904, E1760320820.
- 510 BRAUNSTEIN, JEAN "TECHNICAL EVALUATION OF THE HEALTH/EDUCATION TELECOMMUNICATIONS EXPERIMENT." APR 1976, FEDERATION OF ROCKY MOUNTAIN STATES, TECH. REPORT.
- 511 UNIVERSITY OF WASHINGTON "ATS-6 HEALTH EXPERIMENT." DEC 1974, UNIVERSITY OF WASHINGTON, SEATTLE, WASHINGTON, TECH. REPORT, PB-250 420.
- 512 KENNARD, J.G.; NICE, A.W. "CTS REFERENCE BOOK." OCT 1975, LEWIS RESEARCH CENTER, CLEVELAND, OHIO, REFERENCE BOOK, N76-71143, TM-X-1824.
- 513 IPPOLITO, L.J. "TWENTY AND THIRTY GHZ MILLIMETER WAVE EXPERIMENTS WITH THE ATS-6 SATELLITE." AUG 1975, NASA GODDARD SPACE FLIGHT CENTER, GREENBELT, MD., N75-33154, TECHNICAL REPORT.
- 514 CHI, A.R. "PRECISE TIME DISSEMINATION EXPERIMENT USING THE ATS-1 SATELLITE." OCT 1975, NASA, GODDARD SPACE FLIGHT CENTER, GREENBELT, MD. 20771, TECH. REPORT, AD-A0 29 311.
- 515 DOHNER, C.W.; CULLEN, T.J.; ZINSER, E.A. "ATS-6 SATELLITE EVALUATION." AUG 1975, OFFICE OF RESEARCH IN MEDICAL EDUCATION, SCHOOL OF MEDICINE SC-64, UNIVERSITY OF WASHINGTON, SEATTLE, WASHINGTON 98195, TECH. REPORT, PB-247 303.
- 516 KIFKIN, M. "PHS-CTS EXPERIMENTS PLAN." DECEMBER 1976, THE MITRE CORPORATION, 1820 DOLLY MADISON BLVD., MCLEAN, VIRGINIA 22101, PROPOSAL.
- 517 CARNAHAN, C.E. "INFORMING THE PUBLIC OF STS-SPACELAB BENEFITS-A CASE HISTORY." 2-4 JUNE 1976, MARTIN MARIETTA AEROSPACE, DENVER, COLORADO, JOURNAL ARTICLE, 76A 42357.
- 518 THOLE, JOHN M.; DOORNBAND, HARRY "ATS-6 (UPGRADING THE LIFE STYLE OF MILLIONS OF PEOPLE)." 30 SEP TO 5 OCT 1974, NASA, WASHINGTON, D.C., FAIRCHILD SPACE AND ELECTRONIC CO., GERMANTOWN, MD., JOURNAL ARTICLE, 75A 13721.
- 519 PERRINE, J.R. "TELECOMMUNICATIONS TECHNOLOGY AND RURAL EDUCATION IN THE UNITED STATES." MAR 1975, WASHINGTON UNIVERSITY, ST. LOUIS, MO., TECH. REPORT.
- 520 UNKNOWN "NASA ACTIVITIES." MAR 1977, NEWSPAPER ARTICLE.
- 521 RUBINSTEIN, ELLIS "DOLLARS VS SATELLITES." OCT 1, 1976, JOURNAL ARTICLE.

- 522 ALLAN, R.
"COMING: THE ERA OF TELEMEDICINE." DEC 1976, JOURNAL ARTICLE.
- 523 FEINER, ALBERT
"HEALTH CARE AND EDUCATION: ON THE THRESHOLD OF SPACE." DEC 1974, JOURNAL ARTICLE.
- 524 HUPE, H.H.
"STEPPING UP TO A PUBLIC SERVICE SATELLITE CONSORTIUM." MAY 1975, JOURNAL ARTICLE.
- 525 HUPE, H.H.
"COST-EFFECTIVENESS OF AN INTERACTIVE BROADCAST SATELLITE." JAN 1975, JOURNAL ARTICLE.
- 526 UNKNOWN
"PUBLIC SERVICE SATELLITE CONSORTIUM." MAR 1977, CORRESPONDENCE.
- 527 DOHNER, C.W.; ZINER, E.A.; CULLEN, T.J.
"EVALUATION OF SATELLITE COMMUNICATION FOR TEACHING BASIC SCIENCE AND CLINICAL MEDICINE." 21 JULY 1975, JOURNAL ARTICLE.
- 528 UNKNOWN
"APPALACHIAN TEACHERS STUDY VIA ATS-6." JUNE-JULY 1974, APPALACHIA, JUNE-JULY 1974, JOURNAL ARTICLE, EJ 104727.
- 529 ANDERSON, R.E.
"REMOTELY CONTROLLED AUTOMATIC DATA COLLECTION SYSTEM." AUG 1974, TECH. MEMORANDUM.
- 530 UNKNOWN
"ATS USER FROM 1966-77." 1977, REQUEST FOR USE OF ATS SATELLITE.
- 531 WILSON, M.R.; BRADY, C.
"HEALTH CARE IN ALASKA VIA SATELLITE." JUL 1975, PAPER.
- 532 UNKNOWN
"ATS-6 COMING HOME." NOVEMBER 1976, NEWSPAPER ARTICLE.
- 533 POLCYN, K.A.
"THE PROPOSED BRAZILIAN EDUCATIONAL SATELLITE EXPERIMENT." 1972, JOURNAL ARTICLE.
- 534 MCMAHON, J.; MISKO, C.; OKA, B.J.
"(1) FIRST YEAR MEDICAL USER DEMONSTRATIONS, (2) PACIFIC LIBRARY CONFERENCES, (3) BIOMEDICAL TRANSMISSION TESTS." JULY 1973, PEACESAT PROJECT, COMMUNICATION PROGRAM, UNIVERSITY OF HAWAII, HONOLULU, HAWAII 96822, TECHNICAL REPORT, PB-22 3 030, NIH 71-4706.
- 535 UNKNOWN
"THE CASE AGAINST SATELLITES." 1974, REPORT.
- 536 ANDERSON, R.E.; BRISKEN, A.F.
"SEARCH AND RESCUE TECHNOLOGY EXPERIMENTS WITH A GEOSTATIONARY SATELLITE." SEP 1976, PAPER.

- 537 SCRUPSKI, S.E.
"USERS STARTING TO HOP ABOARD U.S. COMMUNICATIONS SATELLITES." OCT 1974, JOURNAL ARTICLE.
- 538 KRISHNAMOORTHY, P.V.
"LEARNING THROUGH SATELLITE BROADCASTING." 1975, REPORT.
- 539 PITTMAN, T.S.; ORVIK, J.M.
"ATS-6 AND STATE TELECOMMUNICATIONS POLICY FOR RURAL ALASKA." DECEMBER 1976, CENTER FOR NORTHERN EDUCATIONAL RESEARCH, UNIVERSITY OF ALASKA, FAIRBANKS, ALASKA, TECHNICAL REPORT.
- 540 FRUTKIN, A.W.
"THE INTERNATIONAL AGE IN SPACE." OCT 74, NASA, WASHINGTON, D.C., JOURNAL ARTICLE, 75A 25714.
- 541 ROBINSON, D.L.
"APPLICATIONS TECHNOLOGY SATELLITE ADVANCED MISSION STUDY." FAIRCHILD INDUSTRIES, SPACE AND ELECTRONIC DIVISION, GERMANTOWN, MARYLAND 20767, TECH. REPORT, CR 120873.
- 542 GABY, D.C.; COCHRAN, D.R.; LUSHINE, J.B.; PEARCE, S.C.; PIKE, A.C.; POTEAT, K.O.
"ATLANTIC TROPICAL CYCLONE CLASSIFICATIONS FOR 1974." APR 1975, NESS SATELLITE FIELD SERVICE STATION, NOAA, MIAMI, FL., TECH. MEMORANDUM, COM-75-10676, NESS 68.
- 543 WHALEN, A.A.; JOHNSTON, W.A. JR.
"A SATELLITE FOR HUMAN NEEDS." 21-23 JULY 1975, NASA GODDARD SPACE FLIGHT CENTER, GREENBELT, MARYLAND, JOURNAL ARTICLE, A75-38035.
- 544 LUSIGNAN, B.B.; POTTER, J.G.; JANKY, J.M.
"THE DEVELOPMENT OF THE PUBLIC SATELLITE CONSORTIUM: A HISTORY AND ANALYSIS OF TECHNICAL ALTERNATIVES." JOURNAL ARTICLE.
- 545 REYNOLDS, D.W.; VONDER HAAR, T.H.
"SATELLITE SUPPORT TO THE HIPLEX ACTIVITIES FOR 1975." DEC 1975, DEPARTMENT OF ATMOSPHERIC SCIENCE, COLORADO STATE UNIVERSITY, FORT COLLINS, COLORADO, TECH. REPORT, PB-250 563.
- 546 HODGE, D.B.; THEOBOLD, D.M.
"ATS-6 MILLIMETER WAVELENGTH PROPAGATION EXPERIMENT." JUNE 1975, THE OHIO STATE UNIVERSITY ELECTROSCIENCE LABORATORY, DEPARTMENT OF ELECTRICAL ENGINEERING, COLUMBUS, OHIO 43212, PROGRESS REPORT.
- 547 SNYDER, J.F.; ASHMAN, J.P.; BRANDLI, H.W.
"METEOROLOGICAL SATELLITE COVERAGE OF FLORIDA EVERGLADES FIRES." OCT 1976, JOURNAL ARTICLE, 77A 10970.
- 548 FEDERATION ENGINEERING STAFF
"DATA COLLECTION OPERATIONAL SUPPORT SYSTEM, PART 2." NOV 1975, FEDERATION OF ROCKY MOUNTAIN STATES, 2480 W. 26 AVENUE SUITE 300B, DENVER, COLORADO 80211, TECH. REPORT, 76N-22247.

- 549 MAURO, P.G.
"DIGITAL TONE RANGING MODEM DESIGN AND IMPLEMENTATION." MAY 1976, U.S. DEPARTMENT OF TRANSPORTATION, TRANSPORTATION SYSTEM CENTER, KENDALL SQUARE, CAMBRIDGE, MASS. 02142, TECH. REPORT, AD-A026 888.
- 550 HASLER, A.F.; SHENK, W.; SKILLMAN, W.
"WIND ESTIMATES FROM CLOUD MOTIONS-PHASE 1 OF AN IN SITU AIRCRAFT VERIFICATION EXPERIMENT." JAN 1976, JOURNAL ARTICLE, 76A 22656.
- 551 SALOMONSON, V.V.
"EOLLE BALLOON AND ATS CLOUD MOTION COMPARISONS." OCT 1975, JOURNAL ARTICLE, 76A 10983.
- 552 SCHRÖEDER, E.H.; SUTTON, R.W.; THOMPSON, A.D.; PAULSON, C.V.; WILSON, S.G.
"U.S. AERONAUTICAL L-BAND SATELLITE TECHNOLOGY TEST PROGRAM." JUN 1975, THE BOEING COMMERCIAL AIRPLANE COMPANY, P.O. BOX 3707, SEATTLE, WASHINGTON 98124, PROGRESS REPORT, AD-A016 171.
- 553 IPPOLITO, L.J.
"20-AND 30-GHZ MILLIMETER WAVE EXPERIMENTS WITH THE ATS-6 SATELLITE." APRIL 1976, GODDARD SPACE FLIGHT CENTER, GREENBELT, MARYLAND 20771, TECH. MEMORANDUM, 76N 22424.
- 554 MILLER, M.R.
"LIBRARY NETWORKS 1974-1975." 1974, KNOWLEDGE INDUSTRY PUBLICATIONS, INC., P.O. BOX 429, TIFFANY TOWERS, WHITE PLAINS, NEW YORK 10602, TECH. REPORT, ED 094 782.
- 555 DONOUGHE, P.L.
"UNITED STATES SOCIETAL EXPERIMENTS VIA THE COMMUNICATIONS TECHNOLOGY SATELLITE." JUNE 1976, LEWIS RESEARCH CENTER, CLEVELAND, OHIO 44135, TECH. MEMORANDUM, 76 21256.
- 556 SUTTON, R.W.; SCHRÖEDER, E.H.; THOMPSON, A.D.; WILSON, S.G.
"SATELLITE-AIRCRAFT MULTIPATH AND RANGING EXPERIMENT RESULTS AT L-BAND." MAY 1973, BOEING COMMERCIAL AIRPLANE COMPANY, SEATTLE, WASHINGTON 98124, JOURNAL ARTICLE, 73A 29898.
- 557 CARD, M.L.; PALMER, J.D.; LOGAN, K.; LOPIANOWSKI, N.M.
"SMALL EARTH STATIONS FOR BROADCASTING SATELLITE SYSTEMS." MAR 1975, SPACE SYSTEMS PLANNING, COMMUNICATION CANADA, 100 METCALFE STREET, OTTAWA, ONTARIO, CANADA K1A 0C8, JOURNAL ARTICLE, E1750 534 731.
- 558 FLANDERS, A.F.; SCHIESL, J.W.
"HYDROLOGIC DATA COLLECTION VIA GEOSTATIONARY SATELLITE." JAN 1971, JOURNAL ARTICLE, 72A 22315.
- 559 MCGRAW, W.
"TOWARD THE PUBLIC DIVIDEND: A REPORT ON SATELLITE TELECOMMUNICATIONS." 1977, THE PUBLIC INTEREST SATELLITE ASSOCIATION, 55 WEST 44TH STREET, NEW YORK, NEW YORK 10036, TECHNICAL REPORT.
- 560 UNKNOWN
"COMMUNICATIONS TECHNOLOGY SATELLITE." JAN 1976, INDEX OF USERS.

- 561 CRANE, NORMA
"CTS U.S. USER EXPERIMENTS, ASSOCIATED ORGANIZATIONS AND PERSONNEL." 24 AUG 1976, INDEX OF USERS.
- 562 DONOUGHE, P.L.
"CTS UNITED STATES USERS MEETING #13." JAN 1976, NASA-LEWIS RESEARCH CENTER, CLEVELAND, OHIO 44135, PROGRESS REPORT.
- 563 DONOUGHE, P.L.
"CTS UNITED STATES USERS MEETING #14." APRIL 1976, NASA-LEWIS RESEARCH CENTER, CLEVELAND, OHIO 44135, PROGRESS REPORT.
- 564 DONOUGHE, P.L.
"CTS UNITED STATES USER MEETING #16." NOV 1976, NASA-LEWIS RESEARCH CENTER, CLEVELAND, OHIO 44135, PROGRESS REPORT.
- 565 DONOUGHE, P.L.
"CTS UNITED STATES USER MEETING #17." FEB 1977, NASA-LEWIS RESEARCH CENTER, CLEVELAND, OHIO 44135, PROGRESS REPORT.
- 566 MORSE, H.E.
"THE APPALACHIAN EDUCATIONAL SATELLITE PROGRAM: OPERATIONAL PLAN." DEC 1976, APPALACHIAN REGIONAL COMMISSION, 1666 CONNECTICUT AVE. N.W., WASHINGTON, D.C. 20235, OPERATIONAL PLAN.
- 567 COWLAN, B.; FOOTE, D.R.
"THE ATS-6: AMERICAN CASE STUDIES." DEC 1975, AGENCY FOR INTERNATIONAL DEVELOPMENT, JOURNAL ARTICLE.
- 568 HUPE, H.H.
"MARKETS FOR A SOCIAL SERVICES SATELLITE." FEB 1975, DEPT. OF HEALTH, EDUCATION AND WELFARE, OFFICE OF TELECOMMUNICATIONS POLICY, JOURNAL ARTICLE.
- 569 ANDERSON, R.E.
"POSITION FIXING EXPERIMENTS USING COMMUNICATION-COMPATIBLE RANGING SIGNAL S." 1973.
- 570 CLIPPINGER, J.H.
"WHO GAINS BY COMMUNICATIONS DEVELOPMENT? STUDIES OF INFORMATION TECHNOLOGIES IN DEVELOPING COUNTRIES." JAN. 1976, PROGRAM ON INFORMATION TECHNOLOGIES AND PUBLIC POLICY, HARVARD UNIVERSITY, CAMBRIDGE, MASS. 02138, WORKING PAPER.
- 571 GRIFFITH, C.G.; WOODLEY, W.L.; BROWNER, S.; TEJEIRO, J.; MAIER, M.; MARTIN, D.W.; STOUT, J.; SIKDAR, D.N.
"RAINFALL ESTIMATION FROM GEOSYNCHRONOUS SATELLITE IMAGERY DURING DAYLIGHT HOURS." FEB 1976, NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION ENVIRONMENTAL RESEARCH LABORATORIES, BOULDER, COLO., TECHNICAL REPORT.
- 572 UNKNOWN
"ATS-6 HEALTH EXPERIMENT: INDIAN HEALTH SERVICE, ALASKA WAMI EXPERIMENT IN REGIONALIZED MEDICAL EDUCATION, SEATTLE, WASHINGTON, PHASE 1." DEC 1974, UNIVERSITY OF WASHINGTON-PROJECT OFFICE, ATS-6 HEALTH EXPERIMENT MANAGEMENT & TECHNICAL OPERATIONS, SEATTLE, WASHINGTON 98195, TECHNICAL REPORT.

- 573 UNKNOWN
 "ATS-6 HEALTH EXPERIMENT: INDIAN HEALTH SERVICE, ALASKA WAMI EXPERIMENT IN REGIONALIZED MEDICAL EDUCATION, SEATTLE, WASHINGTON. PHASE 2." DEC 1975, UNIVERSITY OF WASHINGTON, PROJECT OFFICE, ATS-6 HEALTH EXPERIMENT MANAGEMENT & TECHNICAL OPERATIONS, SEATTLE, WASHINGTON 98195, TECHNICAL REPORT.
- 574 GRAYSON, L.P.
 "EDUCATION SATELLITES: THE ATS-6 EXPERIMENTS." OCT 1974, NATIONAL INSTITUTE OF EDUCATION, WASHINGTON, D.C., JOURNAL ARTICLE.
- 575 CONLAN, B.; FOOTE, D.R.
 "A CASE STUDY OF THE ATS-6 HEALTH, EDUCATION AND TELECOMMUNICATIONS PROJECT S." AUG 1975, OFFICE OF EDUCATION AND HUMAN RESOURCES, BUREAU FOR TECHNICAL ASSISTANCE, AGENCY FOR INTERNATIONAL DEVELOPMENT, TECHNICAL REPORT, EDRS ED 118 149.
- 576 CALDWELL, K.S.
 "THE VETERANS ADMINISTRATION EXPERIMENTS IN HEALTH COMMUNICATIONS ON THE APPLICATIONS TECHNOLOGY SATELLITE (ATS-6)." 1976, APPLIED COMMUNICATION RESEARCH, STANFORD, CALIFORNIA, TECHNICAL REPORT, EDRS 119 719.
- 577 BYSTRUM, J.W.
 "PEACESAT (PACIFIC EDUCATION AND COMMUNICATION EXPERIMENTS BY SATELLITE) PROJECT SOCIAL APPLICATIONS: EARLY USES OF INTERNATIONAL TWO-WAY COMMUNICATIONS BY SATELLITE FOR SOCIAL DEVELOPMENT. REPORT 2." OCT 1975, PEACESAT, UNIVERSITY OF HAWAII, HONOLULU, HAWAII, TECHNICAL REPORT, EDRS ED 120 845.
- 578 POPPER, R.; HAGEBOECK, M.; SAVAGE, H.
 "STUDY OF EDUCATION SATELLITE COMMUNICATIONS DEMONSTRATION IN ALASKA: SOME TENTATIVE CONCLUSIONS 4TH BI-MONTHLY REPORT." JUN 1975, PRACTICAL CONCEPTS INC., 1730 RHODE ISLAND AVENUE, N.W., SUITE 200, WASHINGTON, D.C. 20036, PROGRESS REPORT, EDRS ED 110 031.
- 579 FOOTE, D.R.; PARKER, E.B.; HUDSON, W.E.
 "TELEMEDICINE IN ALASKA: THE ATS-6 SATELLITE BIOMEDICAL DEMONSTRATION." FEB 1976, INSTITUTE FOR COMMUNICATION RESEARCH, STANFORD UNIVERSITY, STANFORD, CALIF., TECHNICAL REPORT, EDRS ED 119 675.
- 580 BYSTRUM, J.W.
 "SATELLITE COMMUNICATION APPLIED TO THE NEEDS OF DEVELOPING AREAS: THE PEACESAT EXPERIMENT." 12-14 AUGUST 1974, INTERNATIONAL CONFERENCE OF COMPUTER COMMUNICATIONS, STOCKHOLM, SWEDEN, PAPER, EI 760 96 3819.
- 581 MILLER, J.A.
 "DRY AIR INTRUSION INTO A LOW-LEVEL MOIST TONGUE AS VIEWED BY ATS-3." JULY 1973, NATIONAL ENVIRONMENTAL SATELLITE SERVICE, KANSAS CITY, MO., JOURNAL ARTICLE, 74A 10386.
- 582 NITTA, T.; JESBENSEN, S.
 "HEAT AND MOISTURE BUDGET ANALYSES USING BOMEX DATA." JAN 1974, DEPARTMENT OF METEOROLOGY, UNIVERSITY OF CALIFORNIA, LOS ANGELES, CALIFORNIA 90024, JOURNAL ARTICLE, 74A 26007.

- 583 ANDRZEJEWSKI, S.J.
"ATMOSPHERIC ATTENUATION PREDICTION IN THE MILLIMETER WAVE FREQUENCY BAND.
"17-19 JUNE 1974, WESTINGHOUSE ELECTRIC CORPORATION, BALTIMORE, MARYLAND, PAPER, 74A 39682.
- 584 STAFF NASA & FAIRCHILD INDUSTRIES; NASA; FAIRCHILD INDUSTRIES.
"THE COMMUNITY SATELLITE I." SEPT 1974, JOURNAL ARTICLE, 74A 40399.
- 585 STAFF NASA & FAIRCHILD INDUSTRIES; NASA; FAIRCHILD INDUSTRIES.
"THE COMMUNITY SATELLITE II." OCT 1974, JOURNAL ARTICLE, 74A 44686.
- 586 STAFF NASA & FAIRCHILD INDUSTRIES; NASA; FAIRCHILD INDUSTRIES.
"THE COMMUNITY SATELLITE III." NOV 1974, JOURNAL ARTICLE, 75A 11822.
- 587 FUJITA, T.T.; PEARL, E.W.; SHENK, W.E.
"SATELLITE-TRACKED CUMULUS VELOCITIES." APR 1975, JOURNAL ARTICLE, 75A 28701.
- 588 BAIRD, G.; MCKENNA, T.; MONGAIN, E.O.; BIRKILL, S.J.
"TELEVISION FROM INDIA." MAR 1976, JOURNAL ARTICLE, EI 760642263.
- 589 PAL, Y.
"SOME EXPERIENCES IN PREPARING FOR A SATELLITE TELEVISION EXPERIMENT FOR RURAL INDIA." OCT 1975, JOURNAL ARTICLE, 75A 47327.
- 590 DAVIES, K.; FRITZ, R.B.; GRUBB, R.N.; JONES, J.E.
"ATS-6-RADIO BEACON EXPERIMENT THE FIRST YEARS---IONOSPHERIC AND SATELLITE
-TO-GROUND ELECTRON CONTENT." NOV 1975, JOURNAL ARTICLE, 75A 17912.
- 591 CORRIGAN, J.P.
"ATS-6 EXPERIMENT SUMMARY." NOV 1975, JOURNAL ARTICLE, 76A 17903.
- 592 REDISCH, W.N.
"ATS-6 DESCRIPTION AND PERFORMANCE." NOV 1975, JOURNAL ARTICLE, 76A 17902.
- 593 HENRY, V.F.
"ATS-6 RADIO FREQUENCY INTERFERENCE MEASUREMENT EXPERIMENT." NOV 1975,
JOURNAL ARTICLE, 76A 17908.
- 594 HYDE, G.
"ATS-6 PRELIMINARY RESULTS FROM THE 13/18-GHZ COMSAT PROPAGATION EXPERIMENT.
T." NOVEMBER 1975, JOURNAL ARTICLE, 76A 17910.
- 595 IPPOLITO, L.J.
"ATS-6-MILLIMETER WAVE PROPAGATION AND COMMUNICATIONS EXPERIMENTS AT 20
AND 30 GHZ." NOV 1975, JOURNAL ARTICLE, 76A 17909.
- 596 MILLER, J.E.
"ATS-6 TELEVISION RELAY USING SMALL TERMINALS EXPERIMENT." NOV 1975,
JOURNAL ARTICLE, 76A 17906.
- 597 MILLER, J.E.
"ATS-6 SATELLITE INSTRUCTIONAL TELEVISION EXPERIMENT." NOV 1975, JOURNAL
ARTICLE, 76A 17905.

- 598 YAMAMOTO, H.; HARAKA, K.; SABURI, Y.
"A TIME COMPARISON EXPERIMENT PERFORMED BY SSRA SYSTEM VIA ATS-1."
MAR 1976, JOURNAL ARTICLE, 76A 41747.
- 599 SMITH, C.L.; HASLER, A.F.
"A COMPARISON OF LOW-CLOUD SATELLITE WIND ESTIMATES WITH ANALYSES BASED ON
AIRCRAFT OBSERVATIONS IN A DISTURBED TROPICAL REGIME." JUNE 1976, JOURNAL
ARTICLE, 76A 35963.
- 600 VOGEL, W.J.; STRAITON, A.W.; FANNIN, B.M.; WAGNER, N.K.
"ATTENUATION DIVERSITY MEASUREMENTS AT 20 AND 30 GHZ." MAR 1976, JOURNAL
ARTICLE, 76A 27106.
- 601 JAMISON, D.; BALL, J.
"USING SATELLITES TO IMPROVE EFFICIENCY IN DELIVERY OF EDUCATIONAL SERVICE
S." DECEMBER 1972, STANFORD UNIVERSITY, CALIFORNIA INSTITUTE FOR MATHEMATICAL
STUDIES, STANFORD, CALIFORNIA, PAPER, ED 074 789.
- 602 CATER, D.
"BEYOND ATS-6: SOCIAL USES OF COMMUNICATIONS." JUNE 1974, ASPEN INSTITUTE FOR
HUMANISTIC STUDIES, PALO ALTO, CALIFORNIA, PAPER, ED 121 254.
- 603 HAYES-HULL, M.
"ETHNIC MINORITIES AND TELECOMMUNICATIONS." MARCH 1975, PAPER, ED 103 927.
- 604 STANFORD, G.; KLEIN, L.
"DEVELOPMENT AND TEST OF A CONFORMAL MICRO STRIP AIRBORNE PHASED ARRAY
FOR USE WITH THE ATS-6 SATELLITE." 3-5 JUNE 1975, BALL BROTHERS, RESEARCH
CORPORATION, P.O. BOX 1062, BOULDER, COLORADO 80302, PAPER, 76A 15945.
- 605 KAMINSKY, Y.
"ATS-6 MARITIME SATELLITE EXPERIMENTS." NOV 1975, TECHNICAL REPORT, PB-250
881.
- 606 HUDLOW, M.O.; SCHERER, W.O.
"PRECIPITATION ANALYSIS FOR BOMEX PERIOD III." SEP 1975, NATIONAL OCEANIC
AND ATMOSPHERIC ADMINISTRATION, WASHINGTON, D.C. 20235, TECHNICAL REPORT,
PB-246 870.
- 607 BROWN III, W.E.; HARDOULES, G.G.; THOMPSON III, W.I.
"MIDLATITUDE MEASUREMENTS OF L-BAND IONOSPHERIC SCINTILLATION WITH THE
ATS-5 SPACECRAFT." SEP 1975, U.S. DEPARTMENT OF TRANSPORTATION, TRANSPORTATIO
N SYSTEMS CENTER, KENDALL SQUARE, CAMBRIDGE, MASS. 02142, TECHNICAL REPORT, PB-
246 286.
- 608 HUCK, R.W.
"COMMUNICATIONS EXPERIMENTERS' GUIDE." FEB 1975, COMMUNICATIONS RESEARCH CEN
TRE, DEPARTMENT OF COMMUNICATIONS, OTTAWA, ONTARIO, CANADA, TECHNICAL MEMORANDU
M, 175-23655.
- 609 HODGE, D.B.; THENBOLD, D.M.; TAYLOR, R.C.
"ATS-6 MILLIMETER WAVELENGTH PROPAGATION EXPERIMENT." JAN 1976, NASA, GSFC, GR
EENBELT, MARYLAND 20771, TECHNICAL REPORT, N76-19211, CR-144737.

- 610 ANDERSON, R.E.
"EVALUATION OF MARITIME SATELLITE COMMUNICATIONS FOR INLAND WATERWAYS." JAN . 1973, GENERAL ELECTRIC, CORPORATE RESEARCH AND DEVELOPMENT, SCHENECTADY, NEW YORK, TECHNICAL REPORT, COM-73-10764.
- 611 MANAS, O.J.; SWAETJEN, R.M.
"NAVIGATION AND COMMUNICATION EXPERIMENT AT L-BAND ON BOARD S.S. MANHATTAN USING ATS-5 SATELLITE." OCT 1970, PAPER, 71A 18816.
- 612 COMMITTEE ON SATELLITE COMMUNICATIONS.
"FEDERAL RESEARCH AND DEVELOPMENT FOR SATELLITE COMMUNICATIONS." 1977, TECHNICAL REPORT.
- 613 BRISKEN, A.F.; ANDERSON, R.E.
"ATS-5 TRILATERATION SUPPORT." DEC 1975, GENERAL ELECTRIC COMPANY, CORPORATE RESEARCH AND DEVELOPMENT, SCHENECTADY, NEW YORK, TECHNICAL REPORT.
- 614 VON BRAUN, W.
"ATS-6 AND THE FUTURE." OCT 1975, JOURNAL ARTICLE, EJ 130005.
- 615 CLARK, J.F.; REDISCH, W.N.
"SATELLITE COMMUNICATIONS AT THE GODDARD SPACE FLIGHT CENTER." MAR 1976, JOURNAL ARTICLE, 76A 25192.
- 616 MCCLURE, R.B.; MUSTED, J.M.; GIORGIO, F.
"MARITIME SATELLITE COMMUNICATIONS TERMINAL IMPLEMENTAL." NOV 1975, INTERNATIONAL CONFERENCE ON DIGITAL SATELLITE COMMUNICATIONS, KYOTO, JAPAN, PAPER, 76A 27676.
- 617 EASTON, R.L.; FISHER, L.C.; HANSON, D.W.; HELLWIG, H.W.; RUEGER, L.J.
"DISSEMINATION OF TIME AND FREQUENCY BY SATELLITE." OCT 1976, JOURNAL ARTICLE, 77A 10635.
- 618 YOSHINO, T.
"LOW-LATITUDE WHISTLERS AND CLOUD DISTRIBUTIONS IN THE CONJUGATE AREA." SEP 1976, JOURNAL ARTICLE, 76A 44669.
- 619 GRAYSON, L.P.
"EDUCATIONAL SATELLITES - A GOAL OR GAOL---SOCIAL AND CULTURAL CONSEQUENCES." JOURNAL ARTICLE, 76A 30904.
- 620 PORTER, S.
"THE NATIONAL INSTITUTE OF EDUCATION'S EDUCATIONAL SATELLITE COMMUNICATIONS DEMONSTRATION: LESSONS LEARNED AND THEIR FEDERAL POLICY IMPLICATIONS." APR 1976, SYRACUSE RESEARCH CORPORATION, PAPER, EDRS ED 122770.
- 621 DALE, J.B.
"THE USE OF A SATELLITE HUMAN INTERACTION SYSTEM IN CONJUNCTION WITH A SATELLITE MEDIA DISTRIBUTION SYSTEM." 1975, FEDERATION OF ROCKY MOUNTAIN STATES, INC., DENVER, COLO., TECHNICAL REPORT, EDRS ED 115232.
- 622 BRAMBLE, W.J.
"EDUCATION ON THE BEAM: A PROGRESS REPORT ON THE APPALACHIAN EDUCATION SATELLITE PROJECT." APRIL 1975, RESOURCES COORDINATING CENTER, UNIVERSITY OF KENTUCKY, LEXINGTON, KENTUCKY, PROGRESS REPORT, PAPER, EDRS ED 108660.

- 623 UNKNOWN
"ALASKA ATS-6 HEALTH/EDUCATION TELECOMMUNICATIONS EXPERIMENT." SEP 1975, GOVERNOR'S OFFICE OF TELECOMMUNICATIONS, JUNEAU, ALASKA, TECHNICAL REPORT, EDRS ED 114068.
- 624 UNKNOWN
"ALASKA ATS-6 HEALTH/EDUCATION TELECOMMUNICATIONS EXPERIMENT." SEP 1975, GOVERNOR'S OFFICE OF TELECOMMUNICATIONS, JUNEAU, ALASKA, EXECUTIVE SUMMARY, EDRS ED 114068.
- 625 BUTLER-PALFREY, R.
"USING ATS-6 FOR CONTINUING MEDICAL EDUCATION AND HEALTH CARE IN APPALACHIA." APR 1975, APPLIED COMMUNICATIONS RESEARCH, STANFORD, CALIF., PAPER.
- 626 FEINER, ALBERT.
"SOME POLICY ISSUES EMERGING FROM THE EDUCATIONAL SATELLITE COMMUNICATIONS DEMONSTRATION IN ALASKA." APR 1976, PRACTICAL CONCEPTS INCORPORATED, WASHINGTON, D.C., PAPER, EDRS ED 124122.
- 627 UNKNOWN
"SATELLITE TECHNOLOGY DEMONSTRATION." SEP 1975, FEDERATION OF ROCKY MOUNTAIN STATES, DENVER, COLO., EXECUTIVE REPORT, EDRS ED 115260.
- 628 JANKY, J.M.; LAURENCE, D.R.; RITCHEY, L.W.
"THE VOICE/DATA COMMUNICATIONS SYSTEM IN THE HEALTH, EDUCATION, TELECOMMUNICATIONS EXPERIMENTS." 1975, FEDERATION OF ROCKY MOUNTAIN STATES, DENVER, COLO., TECHNICAL REPORT, EDRS ED 115237.
- 629 LAURENCE, D.R.; JANKY, J.M.
"EDUCATION VIA SATELLITE: HOW IT WAS DONE BY THE FEDERATION OF ROCKY MOUNTAIN STATES." 1975, FEDERATION OF ROCKY MOUNTAIN STATES, DENVER, COLO., JOURNAL ARTICLE.
- 630 CHANG, Y.
"ANALYSIS OF ANVIL GROWTH FROM ATS PICTURES." JULY 1974, DEPT. OF GEOPHYSICAL SCIENCES, UNIVERSITY OF CHICAGO, CHICAGO, ILL., RESEARCH PAPER, COM-75-10731.
- 631 BRISKEN, A.F.; FREY, R.L.
"CONTINENTAL LAND MOBILE COMMUNICATIONS AND AUTOMATIC POSITION FIXING VIA SATELLITE." APR 1977, GENERAL ELECTRIC CO., CORPORATE RESEARCH AND DEVELOPMENT, SCHENECTADY, N.Y. 12345, PAPER.
- 632 ANDERSON, R.E.
"COMMUNICATIONS AND POSITION FIXING EXPERIMENTS USING THE ATS SATELLITES." JAN 1974, GENERAL ELECTRIC CO., CORPORATE RESEARCH AND DEVELOPMENT, SCHENECTADY, N.Y. 12345, JOURNAL ARTICLE.
- 633 ANDERSON, R.E.
"RESULTS OF AN EXPERIMENT TO LOCATE AND READ DATA FROM UNMANNED TRANSPONDERS USING SATELLITES." 1971, GENERAL ELECTRIC CO., CORPORATE RESEARCH AND DEVELOPMENT, SCHENECTADY, N.Y. 12345, PAPER.
- 634 WUGHTER, W.R.
"DATA COLLECTION OPERATIONAL SUPPORT SYSTEM." FEDERATION OF ROCKY MOUNTAIN STATES, 2480 W. 26 AVE. SUITE 3008, DENVER, COLO. 80211, TECHNICAL REPORT, CR 144746.

- 635 UNKNOWN
"NASA FACTS." 1975, NASA, NEWSPAPER ARTICLE.
- 636 ALLEN, W.K.; TAYLOR, R.E.; FEINBERG, E.J.
"POSITION LOCATION AND AIRCRAFT COMMUNICATIONS EQUIPMENT (PLACE)." MAY 1972,
GODDARD SPACE FLIGHT CENTER, GREENBELT, MARYLAND 20771, PROPOSAL.
- 637 WESTINGHOUSE ELECTRIC CORP.
"MARITIME MOBILE SATELLITE COMMUNICATIONS TESTS PERFORMED ON S.S. SANTA LU
CIA" 1969, WESTINGHOUSE ELECTRIC CORP BALTIMORE, MD., TECHNICAL REPORT, PB 183
971.
- 638 WESTINGHOUSE ELECTRIC CORP.
"ATS-5 RANGING RECEIVER AND L-BAND EXPERIMENT, VOLUME 2, DATA REDUCTION AND
ANALYSIS." DECEMBER 1971, WESTINGHOUSE ELECTRIC CORPORATION, BALTIMORE, MARYLA
ND, TECHNICAL REPORT, N74 29500.
- 639 HODGE, D.B.
"MILLIMETER WAVELENGTH PROPAGATION STUDIES." JUN 1974, OHIO STATE UNIVERSITY
COLUMBUS, OHIO, TECHNICAL REPORT, N74 29495.
- 640 ANDERSON, R.E.
"ATS RANGING AND POSITION FIXING EXPERIMENT, PHASE 3." GENERAL ELECTRIC CO.
SCHENECTADY, NY 12345, TECHNICAL REPORT, N73-25896.
- 641 ROBINSON, J.J.
"AERONAUTICAL SATELLITES - PROGRESS REPORT ON THE JOINT AEROSAT EVALUATION
PROGRAMME." 1976, JOURNAL ARTICLE, 76A 29760.
- 642 HODGE, D.B.
"A 15.3 GHZ SATELLITE TO GROUND DIVERSITY EXPERIMENT UTILIZING THE ATS-5 S
ATELLITE." OCT 1972, OHIO STATE UNIVERSITY COLUMBUS, OHIO, TECHNICAL REPORT, 73
N 12144.
- 643 WISHNA, S.; REED, D.
"NASA BALLOON AIRCRAFT RANGING DATA AND VOICE EXPERIMENT." MAY 1972, NASA GSF
C GREENBELT, MARYLAND, TECHNICAL REPORT, 72N 25601.
- 644 THIEME, U.
"BROADCASTING SATELLITES AND INTERNATIONAL LAW: A NEW COMMUNICATIONS TECHNI
LOGY AND ITS WORLDWIDE LEGAL CONSEQUENCES." MAY 1976, AGNEW TECH-TRAN INC. 4
OODLAND HILLS, CALIF., TECHNICAL REPORT, N76-24069.
- 645 TAYLOR, R.E.
"VANGUARD/PLACE EXPERIMENT SYSTEM DESIGN AND TEST PLAN." AUG 1973, TEST PLAN,
N73-30646.
- 646 WATSON, J.S.; PUTNEY, B.H.
"ATS SIMULTANEOUS AND TURNAROUND RANGING EXPERIMENTS." NOV. 1971, TECHNICAL R
EPORT, N72 27885.
- 647 SUMMI, V.E.; SIKOAR, D.N.
"METEOROLOGICAL MEASUREMENTS FROM SATELLITE PLATFORMS." AUG. 1971, UNIVERSIT
Y OF WISCONSIN MADISON, WISCONSIN, TECHNICAL REPORT, 72N13551.

- 648 LASEUR, H.E.; JORDAN, C.L.
"A MULTIPLE-SCALE RESEARCH PROGRAM IN TROPICAL METEOROLOGY." AUG. 1969, DEPT
OF METEOROLOGY FLORIDA STATE UNIV. TALLAHASSEE, FLA., TECHNICAL REPORT, AD 86
4696.
- 649 SIKULA, G.J.; VONDER HAAR, T.H.
"VERY SHORT RANGE LOCAL AREA WEATHER FORECASTING SATELLITES." JAN 1972, DEPT.
OF ATMOSPHERIC SCIENCE COLORADO STATE UNIV. FORT COLLINS, COLO., TECHNICAL
REPORT, AD 744098.
- 650 NORTHROP, C. M.
"BUILDING HISTORY: COMMUNICATIONS TECHNOLOGY AS A CULTURAL TOOL EDUCATION
AL USES OF THE ATS-6 SATELLITE IN ALASKA." JULY 75, AMERICAN INSTITUTE OF
AERONAUTICS AND ASTRONAUTICS, CONFERENCE ON COMMUNICATION SATELLITES FOR
HEALTH/EDUCATION APPLICATIONS, DENVER, COLORADO, JULY 21-23, 1975, PAPER,
75A 38036.
- 651 ODLAND, G. F.; ZINSER, E. A.
"THE FEASIBILITY OF DERMATOLOGIC CONSULTATION TO REMOTE AREAS VIA 2-WAY CO
LOR SATELLITE TRANSMISSION." JULY 75, AMERICAN INSTITUTE OF AERONAUTICS AND
ASTRONAUTICS, CONFERENCE ON COMMUNICATION SATELLITES FOR HEALTH/EDUCATION
APPLICATIONS, DENVER, COLORADO, JULY 21-23, 1975, PAPER, 75A 38031.
- 652 SCHWARZ, M. R.; JOHNSON, M. H.
"ROLE OF SATELLITE BROADCAST IN REGIONAL MEDICAL EDUCATION AND HEALTH CARE
DELIVERY." JULY 75, AMERICAN INSTITUTE OF AERONAUTICS AND ASTRONAUTICS, CO
NFERENCE ON SATELLITES FOR HEALTH/EDUCATION APPLICATIONS, DENVER, COLORADO
, JULY 21-23, 1975, PAPER, 75A 38030.
- 653 CARR, F.S.
"AEROSAT GROUND ENVIRONMENT AND TEST PLAN." 17-19 SEPT. 1973, ELECTRONICS AND
AEROSPACE SYSTEMS CONVENTION, WASHINGTON, D.C., PAPER, 74A 12191.
- 654 MARSTEN, R. B.
"SATELLITE BROADCASTING - CAPABILITIES FOR PUBLIC SERVICE." JULY 75, AMERIC
AN INSTITUTE OF AERONAUTICS AND ASTRONAUTICS, CONFERENCE ON COMMUNICATION
SATELLITES FOR HEALTH/EDUCATION APPLICATIONS, DENVER, COLORADO, PAPER, 75A
38028.
- 655 FEINER, A.
"THE ATS-6 HEALTH CARE EXPERIMENT AND AN APPROACH AS TO HOW TO PROCEED FRO
M HERE." JULY 75, AMERICAN INSTITUTE OF AERONAUTICS AND ASTRONAUTICS, CONFE
RENCE ON COMMUNICATION SATELLITES FOR HEALTH/EDUCATION APPLICATIONS, DENVE
R, COLORADO, PAPER, 75A 38026.
- 656 HARIHARAN, T. A.
"TECHNIQUES AND APPLICATIONS OF REMOTE SENSING IN INDIA." JUNE 74, PAPER, 7
5A 22530.
- 657 HILTON, R. J.
"AIR TRAFFIC CONTROL DEMONSTRATION ASPECTS OF THE APPLICATIONS TECHNOLOGY
SATELLITE-6." APRIL 75, AMERICAN INSTITUTE OF AERONAUTICS AND ASTRONAUTICS,
DIGITAL AVIONICS SYSTEM CONFERENCE, BOSTON, MASSACHUSETTES, PAPER, 75A 26
723.

- 658 MOLINARI, R. L.
"BUOY TRACKING OF OCEAN CURRENTS." JUNE 73, AMERICAN ASTRONAUTICAL SOCIETY,
ANNUAL MEETING, DALLAS, TEXAS, PAPER, 73A 38593.
- 659 SIVO, J. N.; ROBBINS, W. H.; STRETCHBERRY, D. M.
"TRENDS IN NASA COMMUNICATION SATELLITES." AUGUST 72, ANNUAL INSTITUTE ON W
ORLD AFFAIRS, 13TH, SAN DIEGO, CALIFORNIA, PAPER, 73A 12846.
- 660 GROSH, R.C.
"CLOUD PHOTOGRAPHS FROM SATELLITE AS A HYDROLOGICAL TOOL IN REMOTE TROPICA
L REGIONS." WISCONSIN UNIVERSITY MADISON, WISCONSIN, TECHNICAL MEMORANDUM, 72
N 27649.
- 661 SIKDAR, D.N.
"ATS-3 OBSERVED CLOUD BRIGHTNESS FIELD RELATED TO MESO-TO SUBSYNOPTIC-SCALE
E RAINFALL PATTERN." WISCONSIN UNIVERSITY, MADISON, WISCONSIN, TECHNICAL MEMOR
ANDUM, 72N 27648.
- 662 SIKDAR, D.N.
"CONVECTIVE HEAT TRANSPORT OVER THE TROPICAL MID-PACIFIC AS ESTIMATED FROM
A GEOSYNCHRONOUS SATELLITE ALTITUDE." AUG. 1970, WISCONSIN UNIVERSITY MADIS
ON, WISCONSIN, TECHNICAL REPORT, 71N 11616.
- 663 UNKNOWN
"THE APPLICATIONS TECHNOLOGY SATELLITE METEOROLOGICAL DATA CATALOG, VOLUME
5 FINAL CATALOG, 1 AUG. 1969-25 MAY 1970." MAY 1970, ALLIED RESEARCH ASSOCI
ATES, INC. CONCORD, MASS., DATA CATALOG, 71N 26621.
- 664 WARE, J.N.; JOHNSON, M.U.
"ATS SATELLITE COMMUNICATIONS TESTS." MAY 1969, COAST GUARD WASHINGTON RADIO
STATION ELECTRONICS ENGINEERING LAB, ALEXANDRIA, VA., TECHNICAL REPORT, AD-6
87 978.
- 665 APPLIED INFORMATION INDUSTRIES(AII SYSTEMS)
"MARITIME SATELLITE NAVIGATION/COMMUNICATION PROGRAM VOLUME 1. EXECUTIVE
SUMMARY." NOV. 1973, AII SYSTEMS MOORESTOWN, NEW JERSEY, TECHNICAL REPORT, COM
-74-10689.
- 666 APPLIED INFORMATION INDUSTRIES(AII SYSTEMS)
"MARITIME SATELLITE NAVIGATION/COMMUNICATION PROGRAM. VOLUME 3. EXPERIME
NT RESULTS." NOV. 1973, AII SYSTEMS MOORESTOWN, NEW JERSEY, TECHNICAL REPORT,
COM-74-10691.
- 667 FUJITA, T.T.
"USE OF ATS PICTURES IN HURRICANE MODIFICATION." AUG. 1972, CHICAGO UNIVERSI
TY CHICAGO, ILLINOIS., TECHNICAL REPORT, COM-73-10316.
- 668 HINGORANI, R. C.
"INDO-UNITED STATES COOPERATION IN SPACE COMMUNICATION." SEPTEMBER 1975, PA
PER, 76A 10685.
- 669 UNIVERSITY OF TEXAS
"ATS-5 SIGNAL CHARACTERISTICS AT 15.3 GHZ AND RELATED EXPERIMENTS AT 15 AN
D 35GHZ." JUNE 1972, UNIVERSITY OF TEXAS AT AUSTIN MILLIMETER WAVE GROUP ELE
CTRICAL ENGINEERING RESEARCH LABORATORY AUSTIN, TEXAS, TECHNICAL REPORT, 72X
10548 CR-130089.

- 670 WESTINGHOUSE ELECTRIC CORPORATION
"INTEGRATED L-BAND EXPERIMENT." MAR. 1975, WESTINGHOUSE ELECTRIC CORPORATION
DEFENSE AND ELECTRONIC SYSTEMS CENTER ELECTRONIC SYSTEM SUPPORT DIVISION
BALTIMORE, MARYLAND, PROGRESS REPORT, 75X 10237.
- 671 BERRY, L.; HALL, A.R.
"NASA/ESSA WEFAX EXPERIMENT, PARTICIPANT'S GUIDE." NOV. 1966, ALLIED RESEARCH
ASSOCIATES, INC. VIRGINIA ROAD, CONCORD, MASSACHUSETTS, TECHNICAL REPORT,
70X 75452.
- 672 IPPOLITO, L.J.
"THE ATS-F MILLIMETER WAVE PROPAGATION EXPERIMENT." OCT. 1971, NASA GODDARD
SPACE FLIGHT CENTER GREENBELT, MARYLAND, TECHNICAL REPORT, 72X 10021.
- 673 DUROSE, J.F.; WHELLOON, R.A.; COATES, J.L.; WASON, C.B.; CLARK, R.L.; BATTLE,
J.O.; LOWE, B.L.
"VHF NAVIGATION EXPERIMENT." MAY 1971, TEXAS INSTRUMENTS INCORPORATED 13500
NORTH CENTRAL EXPRESSWAY DALLAS, TEXAS 75222, TECHNICAL REPORT, 71N 35770.
- 674 KING, J.L.; DYDE, G.
"THE COMSAT 13 AND 18 GHz PROPAGATION EXPERIMENT." OCT. 1975, ELECTRONICS AND
AEROSPACE SYSTEMS CONVENTION WASHINGTON, D.C., PAPER, 76A 40678.
- 675 DOMM, B.M.; SHAMASKIN, R.B.
"VETERANS ADMINISTRATION SATELLITE TRANSMITTED EXPERIMENTS IN BIOLOGICAL C
OMMUNICATIONS." 21-23 JULY 1975, AIAA CONFERENCE ON COMMUNICATION SATELLITES
FOR HEALTH/EDUCATION APPLICATIONS DENVER, COLORADO, PAPER, 75A 38034.
- 676 BRAMBLE, W.J.; AUSNESS, C.
"AESF DATA BASE INFORMATION." 1974, RESOURCES COORDINATING CENTER, UNIVERSITY
OF KENTUCKY, LEXINGTON, KENTUCKY, TECHNICAL REPORT, ED 103 006.
- 677 CASEY-STAMMER, A.E.; BLEVIS, B.C.
"CANADIAN EXPERIMENTS IN THE SOCIAL APPLICATIONS OF SATELLITE TELECOMMUNIC
ATIONS." JULY 1975, AIAA CONFERENCE ON COMMUNICATION SATELLITES FOR HEALTH/ED
UCATION APPLICATIONS, DENVER COLORADO, JULY 21-23 1975, PAPER, A75-38040.
- 678 STUTZMAN, W.L.; BOSTIAN, C.W.; MANUS, E.A.; MARSHALL, R.E.; WILEY, P.H.
"ATS-6 SATELLITE 20GHz PROPAGATION MEASUREMENTS AT LOW ELEVATION ANGLES." 1
1 DEC. 1975, DEPARTMENT OF ELECTRICAL ENGINEERING, VIRGINIA POLYTECHNIC INST
ITUTE & STATE UNIVERSITY, BLACKBURG, VA. 24061, JOURNAL ARTICLE, 76A 16886.
- 679 REDISCH, W.H.
"ATS-6 DESCRIPTION." OCTOBER 1975, ELECTRONICS AND AEROSPACE SYSTEMS CONVENT
ION, WASHINGTON, D.C., PAPER, 76A 40675.
- 680 ENGLER, I.
"ON OBSERVING A SATELLITE TRANSMISSION IN APPALACHIA." MAY 1977, UDRI DAYTON
, OHIO 45469, INFORMAL NOTES.
- 681 SOARES, M.C.
"EVALUATION INDICATES GOOD RESULTS FOR PROJECT "SACI". "MARCH/APRIL 1974, SC
ITRAN BOX 5456, SANTA BARBARA, CALIFORNIA 93108, JOURNAL ARTICLE, 74N 75670.

- 682 BRANDEL, D.L.; KAMINSKY, Y.
"MARAD MARITIME EXPERIMENTS USING THE NASA ATS-6 SATELLITE."OCT.1975,ELECTRONIC AND AEROSPACE SYSTEMS CONVENTION, WASHINGTON, D.C.,PAPER,76A 40645.
- 683 GUTWEIN, J.M.; WOLFSON, J.A.; ENGLES, P.D.
"MARITIME SAFETY COMMUNICATION EXPERIMENTS WITH THE ATS-6 SATELLITE."OCT.1975,ELECTRONIC AND AEROSPACE SYSTEMS CONVENTION, WASHINGTON, D.C.,PAPER,76A 40647.
- 684 BAKER, J.L.
"SAILBOAT SEARCH AND RESCUE EXPERIMENT."JULY 1977,GODDARD SPACE FLIGHT CENTER, GREENBELT, MD.,JOURNAL ARTICLE.
- 685 UNKNOWN.
"MARITIME COMMUNICATION EXPERIMENTS AND SEARCH - AND - RESCUE EVALUATIONS WITH THE NASA ATS-6 SATELLITE. VOLUME 1-SUMMARY."MAY 1977,U.S.DEPARTMENT OF TRANSPORTATION,TRANSPORTATION SYSTEM CENTER CAMBRIDGE, MA. 02142,INFORMATION FROM FINAL REPORT.
- 686 JEFFERSON, F.W.
"AIR TRAFFIC CONTROL EXPERIMENTATION AND EVALUATION WITH THE NASA ATS-6 SATELLITE - VOLUME 2."APRIL 1976,FEDERAL AVIATION ADMINISTRATION,NATIONAL AVIATION FACILITIES EXPERIMENTAL CENTER,ATLANTIC CITY, NEW JERSEY 08405,TECHNICAL REPORT,FAA-RD-75-173-2.
- 687 SCHROEDER, E.H.; SUTTON, R.W.; THOMPSON, A.D.; WILSON,S.G.; KUO, C.J.
"AIR TRAFFIC CONTROL EXPERIMENTATION AND EVALUATION WITH THE NASA ATS-6 SATELLITE - VOLUME 3."SEPT. 1976,THE BOEING COMMERCIAL AIRPLANE COMPANY,P.O. BOX 3707,SEATTLE, WA. 98124,TECHNICAL REPORT,FAA-RD-75-173-3.
- 688 UNKNOWN.
"ALASKA EDUCATION EXPERIMENT. VOLUME 2. APPENDICES A THROUGH E."30 SEPT. 1975,GOVERNOR'S OFFICE OF TELECOMMUNICATIONS,JUNEAU, ALASKA,TECHNICAL REPORT,ED 114069.
- 689 UNKNOWN
"ALASKA EDUCATION EXPERIMENT. VOLUME 3. APPENDICES F THROUGH J."30 SEPT. 1975,GOVERNOR'S OFFICE OF TELECOMMUNICATIONS,JUNEAU, ALASKA.,TECHNICAL REPORT,ED 114070.
- 690 FILEP, R.T.; JOHANSEN, P.A.
"A SYNTHESIS OF THE FINAL REPORTS AND EVALUATIONS OF THE ATS-6 SATELLITE EXPERIMENTS IN HEALTH, EDUCATION, AND TELECOMMUNICATIONS."FEB.1977,UNIVERSITY OF SOUTHERN CALIFORNIA,SYSTEMS 2000,P.O. BOX 28,REDONDO BEACH, CALIFORNIA 90277,TECHNICAL REPORT.
- 691 FUJITA, T.T.
"LUBBOCK TORNADOES OF 11 MAY 1970."JULY1970,UNIVERSITY OF CHICAGO,DEPARTMENT OF THE GEOPHYSICAL SCIENCES,CHICAGO, ILLINOIS.,RESEARCH PAPER,PB-193 717.
- 692 UNKNOWN
"SACI PROJECT PROGRESS REVIEW MEETING."APR.1972,PROGRESS REPORT,N72-20959.

- 693 CONNOLLY, A.J.; DALE, J.B.; MCWILLIAMS JR., A.E.
"THE FORMATIVE PROCESS USED BY THE SATELLITE TECHNOLOGY DEMONSTRATION IN THE DEVELOPMENT OF TELEVISION PROGRAMMING FOR JUNIOR HIGH SCHOOL STUDENTS. SATELLITE TECHNOLOGY DEMONSTRATION, TECHNICAL REPORT NUMBER 0210." 1975, FEDERATION OF ROCKY MOUNTAIN STATES, INC., 2480 WEST 26TH AVENUE, SUITE 3008, DENVER, COLORADO 80211, TECHNICAL REPORT, ED 115 229.
- 694 WEINBERGER, C.
"APPLICATIONS OF EARTH RESOURCES TECHNOLOGY TO HUMAN NEEDS." JUNE 1975, NASA EARTH RESOURCES SURVEY SYMPOSIUM, LYNDON B. JOHNSON SPACE CENTER, 0645L05# TEXAS., PAPER, 76N 26634, 76N-26631.
- 695 REICH, J.J.
"TELEMEDICINE: THE ASSESSMENT OF AN EVOLVING HEALTH CARE TECHNOLOGY." AUGUST 1974, CENTER FOR DEVELOPMENT TECHNOLOGY, WASHINGTON UNIVERSITY, ST. LOUIS, MISSOURI 63130, TECHNICAL REPORT.
- 696 DEES, J.W.; KING, J.L.; WILTSE, J.C.
"A MILLIMETER WAVE PROPAGATION EXPERIMENT FROM THE ATS-E SPACECRAFT." MARCH 1968, IEEE CONFERENCE, GROUP OF MICROWAVE THEORY AND TECHNOLOGY, NEW YORK, NEW YORK, PAPER, N68-17924.
- 697 TSUCHIYA, K.; HATANABE
"WINTER CLOUD DISTRIBUTION OVER THE PACIFIC OCEAN ON THE BASIS OF AN ANALYSIS OF ATS PHOTOGRAPHS." MAY 1968, TENKI, JOURNAL ARTICLE, N69-17057.
- 698 POMALAZA, J.; WOODMAN, R.; TISNADO, G.; NAKASONE, E.
"STUDY OF EQUATORIAL SCINTILLATION." DECEMBER, 1972, NASA GODDARD SPACE FLIGHT CENTER, GREENBELT, MARYLAND, PROGRESS REPORT, N73-33326.
- 699 STRAITON, A.W.
"ATS-5 MILLIMETER WAVE EXPERIMENTS." 1972, MILLIMETER WAVE GROUP, ELECTRICAL ENGINEERING RESEARCH LABORATORY, THE UNIVERSITY OF TEXAS AT AUSTIN, AUSTIN, TEXAS, TECHNICAL REPORT, N72-27174.
- 700 BYSTRON, J.W.
"PEACESAT PROJECT: EARLY EXPERIENCE." OCTOBER 1975, PEACESAT, UNIVERSITY OF HAWAII, HONOLULU, HAWAII, TECHNICAL REPORT.
- 701 BYSTRON, J.W.
"PEACESAT PROJECT: NETWORKS." NOVEMBER 1975, PEACESAT, UNIVERSITY OF HAWAII, HONOLULU, HAWAII, TECHNICAL REPORT.
- 702 BYSTRON, J.W.
"PEACESAT NEWS FILE 1970-1975." SEPTEMBER 1975, PEACESAT, UNIVERSITY OF HAWAII, HONOLULU, HAWAII, NEWSPAPER ARTICLE.
- 703 UNKNOWN
"PEACESAT FACT SHEET." 1977, PEACESAT PROJECT, UNIVERSITY OF HAWAII, HONOLULU, HAWAII, INFORMAL NOTES.
- 704 BYSTRON, J.W.
"A SATELLITE COMMUNICATION SYSTEM: GLOBAL DEVELOPMENT AND CULTURAL IMPERIALISM." 1976, PEACESAT, UNIVERSITY OF HAWAII, HONOLULU, HAWAII, PAPER.

- 705 DAVIES,K.;FRITZ,R.B.;GRUBB,R.N.;JONES,J.E.
"SOME EARLY RESULTS FROM THE ATS-6 RADIO BEACON EXPERIMENT."AUGUST 1975,NASA ENVIRONMENTAL RESEARCH LABORATORIES,SPACE ENVIRONMENT LABORATORY,BOULDER,COLORADO 80302,JOURNAL ARTICLE.
- 706 KANE,R.K.
"PROCEEDINGS OF THE WORKSHOP ON BEACON SATELLITE STUDIES."DECEMBER 1976,PHYSICAL RESEARCH LABORATORY,AHMEDABAD,INDIA,PROCEEDINGS.
- 707 CHAMBERLAIN,H.P.;LESTER,R.M.
"TRANSPORTABLE TELECOMMUNICATIONS SYSTEM,"BELL CANADA,TELESAT CANADA,TECHNICAL REPORT.
- 708 GREEN,D.
"PROJECT INTERCHANGE: PHASE I AND II."NOVEMBER 1976,PROJECT INTERCHANGE,MENLO,CALIFORNIA 94025,PROGRESS REPORT.
- 709 WILSON,M.R.
"PROGRAM PACKAGES: FY 1977." OCTOBER 1976,OFFICE OF PROGRAM DEVELOPMENT,ALASKA AREA NATIVE HEALTH SERVICE,ANCHORAGE,ALASKA,99510,PROPOSAL.
- 710 ROBERTS,J.M.;HOUSE,A.M.;MCNAMARA,W.C.
"TELEMEDICINE AT MEMORIAL UNIVERSITY OF NEWFOUNDLAND." AUGUST 1977,MEMORIAL UNIVERSITY OF NEWFOUNDLAND,ST. JOHN'S,NEWFOUNDLAND,CANADA,JOURNAL ARTICLE.
- 711 HOUSE,A.M.;ROBERTS,J.M.
"TELEMEDICINE IN CANADA." AUGUST 1977,MEMORIAL UNIVERSITY OF NEWFOUNDLAND,ST. JOHN'S,NEWFOUNDLAND,CANADA,JOURNAL ARTICLE.
- 712 WILSON,M.R.
"HEALTH STATUS OF THE ALASKA NATIVE PEOPLE." AUGUST 1969,ALASKA NATIVE MEDICAL CENTER,ANCHORAGE,ALASKA 99510,PAPER.
- 713 WILSON,M.R.
"CONTEMPORARY HEALTH OF ALASKA NATIVES." JULY 1972,ALASKA AREA NATIVE HEALTH SERVICE,ANCHORAGE,ALASKA 99510,PROGRESS REPORT.
- 714 SCHWARZ,M.R.
"WAMI EXPERIMENT PLAN." 1977,WAMI,SCHOOL OF MEDICINE,UNIVERSITY OF WASHINGTON,SEATTLE,WASHINGTON,EXPERIMENT PLAN.
- 715 LONSDALE,H.C.;MCWILLIAMS JR.,A.E.
"DEVELOPING AND IMPLEMENTING A CONTENT STRUCTURE FOR EDUCATIONAL TELEVISION PROGRAMMING IN THE AREA OF CAREER EDUCATION. SATELLITE TECHNOLOGY DEMONSTRATION,TECHNICAL REPORT NUMBER 0506."1975,TECHNICAL REPORT,ED 115 248.
- 716 MENECHINI,R.
"REVIEW OF DATA ANALYSIS PROCEDURES FOR THE ATS-6 MILLIMETER WAVE EXPERIMENT." AUGUST 1975,NASA,GODDARD SPACE FLIGHT CENTER,GREENBELT,MARYLAND,TECHNICAL REPORT,76N 15338.
- 717 KISKADONN,W.;CARMAN,D.
"EXPERIMENTAL L-BAND SST SATELLITE COMMUNICATIONS/SURVEILLANCE TERMINAL STUDY." NOVEMBER 1968,BOEING AIRPLANE COMPANY,COMMERCIAL AIRPLANE DIVISION,RENTON,WASHINGTON,N69-21096.

- 718 MUSER, B.
"COMMUNICATIONS AND TRACKING RELAY EXPERIMENT." DECEMBER 1968, MOTOROLA, GOVERNMENT ELECTRONICS DIVISION, 8201 EAST MCOWELL ROAD, SCOTTSDALE, ARIZONA, TECHNICAL REPORT, N69-14797.
- 719 RESECK, K.G.; DWYRE, D.G.
"INTELSAT V-TRANSITION TO THE SHUTTLE." JUNE 1977, AIAA, JUNE 1977, JOURNAL ARTICLE.
- 720 UNKNOWN
"IMPLICATIONS OF THE ALASKA EDUCATION SATELLITE COMMUNICATIONS DEMONSTRATION FOR TECHNOLOGICAL AND EDUCATIONAL POLICYMAKERS - VOLUME 2: SUPPORTING MATERIALS." NOVEMBER 1975, PRACTICAL CONCEPTS INCORPORATED, 1730 RHODE ISLAND AVENUE, N.W., SUITE 200, WASHINGTON, D.C. 20036, TECHNICAL REPORT, NIE-6-74-0148.
- 721 UNKNOWN
"A REVIEW OF ORGANIZATIONS INFLUENCING RADIO FREQUENCY ALLOCATIONS TO DEEP SPACE RESEARCH." AUGUST 1976, NATIONAL SCIENTIFIC LABORATORIES, WESTGATE RESEARCH PARK, MCLEAN, VIRGINIA 22101, TECHNICAL REPORT, N77-19287.
- 722 MORSE, H.E.
"THE APPALACHIAN EDUCATION SATELLITE PROJECT - EXECUTIVE REPORT." APPALACHIAN REGIONAL COMMISSION, 1666 CONNECTICUT AVENUE, WASHINGTON, D.C. 20235, TECHNICAL REPORT.
- 723 BRAMBLE, W.J.; AUSNESS, C.
"APPALACHIAN EDUCATION SATELLITE PROJECT (AESP) - OVERVIEW." MARCH 1974, RESOURCES COORDINATING CENTER, 306 FRAZEE HALL, UNIVERSITY OF KENTUCKY, LEXINGTON, KENTUCKY 40506, TECHNICAL REPORT, ED 103 007.
- 724 O'NEILL, J.J.; NOCERINO, J.T.; WALCOFF, P.
"BENEFITS AND PROBLEMS OF SEVEN EXPLORATORY TELEMEDICINE PROJECTS." FEBRUARY 1975, THE MITRE CORPORATION, 1820 DOLLEY MADISON BLVD., MCLEAN, VIRGINIA 22101, TECHNICAL REPORT, PB 247 840, MTR-6787.
- 725 UNKNOWN
"SATELLITE TECHNOLOGY DEMONSTRATION - FINAL REPORT." OCTOBER 1975, FEDERATION OF ROCKY MOUNTAIN STATES, INC., 2480 WEST 26TH AVENUE, DENVER, COLORADO 80211, TECHNICAL REPORT.
- 726 UNKNOWN
"IMPLICATIONS OF THE ALASKA EDUCATION SATELLITE COMMUNICATIONS DEMONSTRATION FOR TELECOMMUNICATIONS AND EDUCATION POLICYMAKERS - EXECUTIVE SUMMARY." NOVEMBER 1975, PRACTICAL CONCEPTS INCORPORATED, 1730 RHODE ISLAND AVENUE, N.W., SUITE 200, WASHINGTON, D.C. 20036, TECHNICAL REPORT, NIE-C-74-0148.
- 727 UNKNOWN
"IMPLICATIONS OF THE ALASKA EDUCATION SATELLITE COMMUNICATIONS DEMONSTRATION FOR TELECOMMUNICATIONS AND EDUCATION POLICYMAKERS - VOLUME 1 - ANALYSIS OF THE DEMONSTRATION." NOVEMBER 1975, PRACTICAL CONCEPTS INCORPORATED, 1730 RHODE ISLAND AVENUE, N.W., SUITE 200, WASHINGTON, D.C. 20036, TECHNICAL REPORT, NIE-C-74-0148.

- 728 RYAN, M.G.; JEAN, G.
"THE IMPACT OF THE COMMUNICATIONS TECHNOLOGY SATELLITE ON A GOVERNMENT ORGANIZATION." 29 MAY-4 JUNE 1977, EDUCATIONAL FEASIBILITY ANALYSIS SERVICES, PUBLIC SERVICE COMMISSION, GOVERNMENT OF CANADA, 1725 WOODWARD DRIVE, OTTAWA, ONTARIO, CANADA, PAPER.
- 729 RYAN, M.G.; MENDENHALL, N.N.
"INTERACTION - A CANADIAN THEME IN EDUCATION BY SATELLITE." 11 JULY 1976, EDUCATIONAL FEASIBILITY ANALYSIS SERVICE, STAFF DEVELOPMENT BRANCH, PUBLIC SERVICE COMMISSION, 1725 WOODWARD DRIVE, OTTAWA, ONTARIO, CANADA, PAPER.
- 730 BARKER, G.; MCCOY, T.
"A SIMULATION OF STAFF TRAINING BY SATELLITE." FEBRUARY 1977, PUBLIC SERVICE COMMISSION, BUREAU OF STAFF DEVELOPMENT, OTTAWA, ONTARIO, CANADA, JOURNAL ARTICLE.
- 731 FRENETTE, C.
"SATELLITE AND STAFF TRAINING." JUNE 1976, EDUCATIONAL FEASIBILITY UNIT, PUBLIC SERVICE COMMISSION, OTTAWA, ONTARIO, CANADA, PAPER.
- 732 RYAN, M.G.; MENDENHALL, N.N.
"CANADIAN SATELLITE EXPERIMENTS - IMPLICATIONS FOR HUMAN COMMUNICATION." 29 DECEMBER 1975, PUBLIC SERVICE COMMISSION, OTTAWA, ONTARIO, CANADA, PAPER.
- 733 MENDENHALL, N.N.; LORTIE, R.
"EVALUATIONS OF INTERACTIVE TELE-EDUCATION IN THE PUBLIC SERVICE COMMISSION." 5-9 SEPTEMBER 1977, PUBLIC SERVICE COMMISSION, OTTAWA, ONTARIO, CANADA, PAPER.
- 734 PROTOPAPA, S.
"AIR TRAFFIC CONTROL EXPERIMENTATION AND EVALUATION WITH THE NASA ATS-6 SATELLITE - VOLUME 1: EXECUTIVE SUMMARY." AUGUST 1977, U.S. DEPARTMENT OF TRANSPORTATION, TRANSPORTATION SYSTEMS CENTER, KENDALL SQUARE, CAMBRIDGE, MASSACHUSETTS 02142, TECHNICAL REPORT, FAA-RO-75-173, 1.
- 735 ORTH, B.
"FACTS: LUTHER LEAGUE NEWSPAPER." JUNE 1977, GLOBAL COMMUNICATIONS PROJECT, REV. DOUGLAS MILLAR, BOX 275, RUTLAND, N.D. 58067, NEWSPAPER ARTICLE.
- 736 UNKNOWN
"NASA ACTIVITIES." SEPTEMBER 1977, AMERICAN RED CROSS, WASHINGTON, D.C., NEWSPAPER ARTICLE.
- 737 CROMBIE, D.D.
"LOWERING BARRIERS TO TELECOMMUNICATIONS GROWTH." NOVEMBER 1976, U.S. DEPARTMENT OF COMMERCE, OFFICE OF TELECOMMUNICATIONS, WASHINGTON, D.C., TECHNICAL REPORT.
- 738 UNKNOWN
"LEWIS NEWS." JANUARY 1977, NEWSPAPER ARTICLE.
- 739 TAYLOR, D.P.; HORVAI, G.; HAYKIN, S.S.
"TESTING A 60 MB/S FFSK MODEM ON HERMES SATELLITE." MARCH 1977, COMMUNICATIONS RESEARCH LABORATORY, MCMASTER UNIVERSITY, HAMILTON, ONTARIO, CANADA, TECHNICAL REPORT.

- 740 SHAMASKIN, R.B.; CALDWELL, D.E.
"ADVANCED BIOMEDICAL APPLICATIONS TO SATELLITE COMMUNICATIONS." JULY 1975, VETERANS ADMINISTRATION, WASHINGTON, D.C. 20420, PAPER.
- 741 SHAMASKIN, R.B.; CALDWELL, K.S.
"SATELLITE EXCHANGES OF MEDICAL INFORMATION." JULY 1974, VETERANS ADMINISTRATION, 810 VERMONT AVENUE N.W., WASHINGTON, D.C. 20420, JOURNAL ARTICLE.
- 742 BYSTROM, J.W.
"THE APPLICATION OF SATELLITES TO INTERNATIONAL INTERACTIVE SERVICE SUPPORT COMMUNICATION." PEACESAT PROJECT, UNIVERSITY OF HAWAII, HONOLULU, HAWAII, JOURNAL ARTICLE, 1975.
- 743 BRAMBLE, W.J.; HENSLEY, C.E.; GOLDSTEIN, D.
"A FOLLOW-UP REPORT ON THE APPALACHIAN EDUCATION SATELLITE PROJECT." 1976, APPALACHIAN EDUCATION SATELLITE PROJECT, RESOURCES COORDINATING CENTER, UNIVERSITY OF KENTUCKY, LEXINGTON, KENTUCKY, JOURNAL ARTICLE.
- 744 HUDSON, H.E.; GUILD, P.D.; COLL, D.C.; LUMB, D.R.
"COLLEGE CURRICULUM - SHARING VIA CTS." 21-23 JULY 1975, AIAA CONFERENCE ON COMMUNICATION SATELLITES FOR HEALTH/EDUCATION APPLICATIONS, DENVER, COLORADO, PAPER, A75-38038.
- 745 BYSTROM, J.W.
"PEACESAT EXPERIMENT - GENERAL DESCRIPTION 1971-1976." SEPTEMBER 1976, JOHN BYSTROM, UNIVERSITY OF HAWAII, HONOLULU, HAWAII, JOURNAL ARTICLE, EJ 146 899.
- 746 CULLEN, T.J.; DOHNER, C.W.; STRIKER, G.E.; SCHWARZ, M.R.
"EVALUATING STUDENT PERFORMANCE IN A DECENTRALIZED BASIC SCIENCE PROGRAM." JUNE 1976, JOURNAL ARTICLE, EJ 139 571.
- 747 SMITH, M.P.; SOSEY, P.
"AN HISTORICAL OVERVIEW OF THE PRODUCTION REQUIREMENT FOR THE SATELLITE TECHNOLOGY DEMONSTRATION. TECHNICAL REPORT NUMBER 504." 1975, FEDERATION OF ROCKY MOUNTAIN STATES, INC., 2480 WEST 26TH AVENUE, SUITE 3008, DENVER, COLORADO 80211, TECHNICAL REPORT, ED 115 246.
- 748 DONOUGHE, P.L.; ROBBINS, W.H.
"CTS UNITED STATES EXPERIMENTS - A PROGRESS REPORT." OCTOBER 1976, LEWIS RESEARCH CENTER, CLEVELAND, OHIO 44135, TECHNICAL MEMORANDUM, NASA TM X-73510.
- 749 BENSTEAD, G.
"SATELLITE COMMUNICATION PROJECT." OCTOBER 1977, UNIVERSITY OF SOUTH PACIFIC, SUVA, FIJI, TECHNICAL REPORT.
- 750 COVVEY, H.D.
"REMOTE PSYCHIATRIC AND PSYCHOLOGICAL SERVICES VIA COMMUNICATIONS TECHNOLOGY SATELLITE (CTS)." MAY 1975, UNIVERSITY OF WESTERN ONTARIO, DEPARTMENT OF PSYCHIATRY, LONDON, ONTARIO, CANADA, PAPER, ED 108 591.
- 751 UNKNOWN
"USING SATELLITE TECHNOLOGY TO INCREASE PROFESSIONAL COMMUNICATIONS AMONG TEACHER: A REPORT OF EXPERIMENTS CONDUCTED BY THE NATIONAL EDUCATION ASSOCIATION." AUGUST 1975, NATIONAL EDUCATION ASSOCIATION, DIVISION OF INSTRUCTION AND PROFESSIONAL DEVELOPMENT, WASHINGTON, D.C., TECHNICAL REPORT, ED 119 140.

- 752 UNKNOWN
"PEACESAT PROJECT SOCIAL APPLICATIONS: EARLY USES OF INTERNATIONAL TWO-WAY COMMUNICATIONS BY SATELLITE FOR SOCIAL DEVELOPMENT, REPORT 2." OCTOBER 1973, HAWAII UNIVERSITY, HONOLULU, HAWAII, TECHNICAL REPORT, ED 120 845.
- 753 MORGAN, R.P.
"COMMUNICATIONS TECHNOLOGY IN THE FUTURE OF HIGHER EDUCATION IN THE UNITED STATES." NOVEMBER 1973, WASHINGTON UNIVERSITY, CENTER FOR DEVELOPMENT TECHNOLOGY, ST. LOUIS, MISSOURI, PAPER, ED 089 664.
- 754 UNKNOWN
"THE APPALACHIAN EDUCATION SATELLITE PROJECT - FINAL REPORT." 1976, APPALACHIAN EDUCATION SATELLITE PROJECT, LEXINGTON, KENTUCKY, TECHNICAL REPORT, ED 125 595.
- 755 BRAMBLE, W.J.; MARION, R.; AUSNESS, C.
"STUDENT ACHIEVEMENT: DIAGNOSTIC AND PRESCRIPTIVE READING INSTRUCTION, SUMMER, 1974. TECHNICAL REPORT NO. 8." AUGUST 1975, RESOURCE COORDINATING CENTER, UNIVERSITY OF KENTUCKY, LEXINGTON, KENTUCKY, TECHNICAL REPORT, ED 114 066.
- 756 BRAMBLE, W.J.; AUSNESS, C.
"FORMATIVE EVALUATION STUDY FOR AESP DIAGNOSTIC AND PRESCRIPTIVE READING COURSE. TECHNICAL REPORT NUMBER THREE." OCTOBER 1974, RESOURCE COORDINATING CENTER, UNIVERSITY OF KENTUCKY, LEXINGTON, KENTUCKY, TECHNICAL REPORT, ED 103 008.
- 757 BRAMBLE, W.J.; AUSNESS, C.
"THE EVALUATION DESIGN: SUMMER COURSES, 1974. TECHNICAL REPORT NUMBER FOUR." DECEMBER 1974, RESOURCE COORDINATING CENTER, UNIVERSITY OF KENTUCKY, LEXINGTON, KENTUCKY, TECHNICAL REPORT, ED 103 009.
- 758 MARION, R.; BRAMBLE, W.J.; AUSNESS, C.
"STUDENT ACHIEVEMENT: CAREER EDUCATION IN THE ELEMENTARY SCHOOL; SUMMER, 1974. TECHNICAL REPORT NUMBER NINE." AUGUST 1975, RESOURCE COORDINATING CENTER, UNIVERSITY OF KENTUCKY, LEXINGTON, KENTUCKY, TECHNICAL REPORT, ED 116 634.
- 759 BRAMBLE, W.J.; AUSNESS, C.; HERTENS, D.
"COST ESTIMATION MODEL FOR ALTERNATIVE FORMATS AND DELIVERY MODES. TECHNICAL REPORT NUMBER TEN." SEPTEMBER 1975, RESOURCE COORDINATING CENTER, UNIVERSITY OF KENTUCKY, LEXINGTON, KENTUCKY, TECHNICAL REPORT, ED 121 262.
- 760 HAYNARD, D.T.
"SUMMATIVE EVALUATION OF CAREER EDUCATION IN THE SECONDARY SCHOOL COURSE; FALL, 1974. TECHNICAL REPORT NUMBER ELEVEN." SEPTEMBER 1975, RESOURCE COORDINATING CENTER, UNIVERSITY OF KENTUCKY, LEXINGTON, KENTUCKY, TECHNICAL REPORT, ED 116 635.
- 761 BRAMBLE, W.J.; HAYNARD, D.T.; MARION, R.
"SUMMATIVE EVALUATION OF DIAGNOSTIC AND PRESCRIPTIVE READING INSTRUCTION K-6 COURSE, SPRING, 1975." SEPTEMBER 1975, RESOURCE COORDINATING CENTER, UNIVERSITY OF KENTUCKY, LEXINGTON, KENTUCKY, ED 118 141.

- 762 MARKLE, N.H.; MARKLE, D.G.; CARLBERG, C.G.; FONTE, D.R.
"HISTORY AND RECOMMENDATIONS RESULTING FROM EVALUATION PLANNING FOR THE FE
DERATION OF ROCKY MOUNTAIN STATES' EDUCATIONAL TECHNOLOGY DEMONSTRATION, F
INAL REPORT, "MAY 1974, STANFORD UNIVERSITY, DEPARTMENT OF COMMUNICATION, STAN
FORD, CALIFORNIA 94305, TECHNICAL REPORT, ED 100 406.
- 763 DARBY, K.
"PROGRAMMING AS AN INSTRUMENT FOR COMMUNITY INVOLVEMENT: DESIGNING TOPICAL
TELEVISION PROGRAMS FOR RURAL ADULT AUDIENCES. SATELLITE TECHNOLOGY DEMON
STRATION, TECHNICAL REPORT NUMBER 503, "FEDERATION OF ROCKY MOUNTAIN STATES,
INC., 2480 WEST 26TH AVENUE, SUITE 3008, DENVER, COLORADO 80211, TECHNICAL REPO
RT, ED 118 084.
- 764 WIRBE, J.J.
"PROJECT LOOK UP," JAN. 1976, PROJECT LOOK UP, INC. P.O. BOX 5106, CLEARWATER
, FL. 33518, INFORMAL NOTES.
- 765 ENGLER, N.A.; STRANGE, J.D.; HEIN, G.F.
"COMPENDIUM OF APPLICATIONS TECHNOLOGY SATELLITE USER EXPERIMENTS, 1967-19
73, "AUG 1976, UNIVERSITY OF DAYTON RESEARCH INSTITUTE, DAYTON, OHIO, 45469,
TECHNICAL REPORT, 77-70 237.
- 766 UNKNOWN
"ATS-F DATA BOOK, "MAY 1974, GODDARD SPACE FLIGHT CENTER, GREENBELT, MARYLAN
D, 20771, DATA BOOK.
- 767 BRISKEN, A.F.; FREY, R.L.; ANDERSON, R.E.
"APPLICATION OF SATELLITE COMMUNICATION AND POSITION FIXING TECHNIQUES TO
LAND MOBILE SYSTEMS, "APR 1977, GENERAL ELECTRIC, SCHENECTADY, N.Y., TECHNICA
L REPORT.
- 768 KING, S.S.; SANDERSON, R.A.
"COMMUNICATION AND THE FUTURES: AN EXPERIMENT IN SATELLITE EDUCATION, "NOV
1977, JOURNAL ARTICLE, EJ 173 264.
- 769 MOTT, R.A.; BRANSFORD, L.A.
"PUBLIC SERVICE SATELLITE CONSORTIUM INFORMATION, "1977-1978, BIBLIOGRAPHY.
- 770 SCOTT, R.W.
"AN EXTRACT FROM THE APPALACHIAN EDUCATION SATELLITE PROGRAM PROPOSAL, "OCT
1977, APPALACHIAN REGIONAL COMMISSION, 1666 CONNECTICUT AVE, WASHINGTON, D.C.,
PROPOSAL.
- 771 MERTENS, D.M.; BRAMBLE, W.J.
"RESULTS OF APPALACHIAN EDUCATION SATELLITE PROJECT NEEDS ASSESSMENT CONFE
RENCES, "JUN 1976, TECHNICAL REPORT.
- 772 ALMOND, J.; FRANKLIN, C.A.; WARREN, E.S.
"A PERSPECTIVE ON THE CANADIAN SATELLITE PROGRAM, "1976, JOURNAL ARTICLE.
- 773 WILLETT, N.W.
"THE USE OF SATELLITES IN BROADCASTING IN THE U.S.A., "MAY 1977, PAPER.
- 774 UNKNOWN
"PUBLIC SATELLITE, "24 OCT 1977, JOURNAL ARTICLE.

- 775 KUN, C.J.; SCHROEDER, E.H.; STAPLETON, D.P.
"AIR TRAFFIC CONTROL EXPERIMENTATION AND EVALUATION WITH THE NASA ATS-6 SATELLITE, VOL 7: ANTENNA EVALUATION TEST," SEP 1976, BOEING, SEATTLE, WASH, TECHNICAL REPORT.
- 776 WILSON, S.G.; PAULSON, C.V.; REESE, I.R.
"AIR TRAFFIC CONTROL EXPERIMENTATION AND EVALUATION WITH THE NASA ATS-6 SATELLITE, VOL 6: MODEM EVALUATION TEST," SEP 1976, BOEING, SEATTLE, WASH, TECHNICAL REPORT.
- 777 THOMPSON, A.D.; BURRESON, B.J.; RIEDER, P.F.; ALEXANDER, P.
"AIR TRAFFIC CONTROL EXPERIMENTATION AND EVALUATION WITH THE NASA ATS-6 SATELLITE, VOL 5: MULTIPATH CHANNEL TEST," SEP 1976, BOEING, SEATTLE, WASH, TECHNICAL REPORT.
- 778 THOMPSON, A.D.; WILSON, S.G.; RIEDER, P.F.; CHU, W.L.; HARNESICH, M.J.; PAULSON, C.V.; ALEXANDER, P.
"AIR TRAFFIC CONTROL EXPERIMENTATION AND EVALUATION WITH NASA ATS-6 SATELLITE, VOL 4: DATA REDUCTION AND ANALYSIS SOFTWARE," SEP 1976, BOEING COMMERCIAL AIRPLANE CO., SEATTLE, WASH, TECHNICAL REPORT.
- 779 MILNER, P.; GOLAB, J.S.
"INTELLIGIBILITY OF VOICE TRANSMISSION THROUGH A SATELLITE RELAY SYSTEM," 1975, CBS LABORATORIES, STAMFORD, CONN., TECHNICAL REPORT.
- 780 UNKNOWN
"A COMPENDIUM OF UNITED STATES CTS EXPERIMENTS," MAR 1978, JOINT COUNCIL ON EDUCATIONAL TELECOMMUNICATIONS, WASHINGTON, D.C., TECHNICAL REPORT.
- 781 CALIO, A.J.
"SPEECH TO PSSC MEETING," 4 OCT 1978, NASA, WASHINGTON, D.C., SPEECH.
- 782 POTTER, J.
"THE CONTINUING EDUCATION NETWORK," 2 NOV 1976, PUBLIC SERVICE SATELLITE CON SORTIUM, SAN DIEGO, CAL., 92121, CORRESPONDENCE.
- 783 MOHM, R.E.; GIVENS, J.
"ASTROTEACHING," MAR 1977, JOURNAL ARTICLE, EJ 160 729.
- 784 SCHWARZ, M.R.
"IN THE NORTHWEST, IT IS WAMI," MAY 1976, JOURNAL ARTICLE, EJ 144155.
- 785 ENGLER, N.A.; NASH, J.F.; STRANGE, J.D.
"CONTINUATION OF THE COMPENDIUM OF APPLICATIONS TECHNOLOGY SATELLITE AND COMMUNICATIONS TECHNOLOGY SATELLITE USER EXPERIMENTS 1967-1977 VOLUME I," MAY 1978, UNIVERSITY OF DAYTON, RESEARCH INSTITUTE, 300 COLLEGE PARK, DAYTON, OHIO, 45469, TECHNICAL REPORT, CR-135416, UDR-TP-78-67.
- 786 ENGLER, N.A.; NASH, J.F.; STRANGE, J.D.
"CONTINUATION OF THE COMPENDIUM OF APPLICATIONS TECHNOLOGY SATELLITE AND COMMUNICATIONS TECHNOLOGY SATELLITE USER EXPERIMENTS 1967-1977 VOLUME II - ABSTRACTS," MAY 1978, UNIVERSITY OF DAYTON, RESEARCH INSTITUTE, 300 COLLEGE PARK, DAYTON, OHIO, 45469, TECHNICAL REPORT, CR-135416, UDR-TR-78-67.

- 787 ENGLER, N.A.; NASH, J.F.; STRANGE, J.D.
"CONTINUATION OF THE COMPENDIUM OF APPLICATIONS TECHNOLOGY SATELLITE AND C
OMMUNICATIONS TECHNOLOGY SATELLITE USER EXPERIMENTS 1967-1977 VOLUME II -
USER FORM SURVEYS," MAY 1978, UNIVERSITY OF DAYTON, RESEARCH INSTITUTE, 300
COLLEGE PARK, DAYTON, OHIO, 45469, TECHNICAL REPORT, CR-135416, UDR-TR-78-67
- 788 DONOUGHE, P.L.; MUNCZAK, M.R.
"CTS (HERMES)- UNITED STATES EXPERIMENTS AND OPERATION SUMMARY," DEC 1977, T
ECHNICAL MEMORANDUM.
- 789 EDELMAN, E.A.; FIALA, J.L.; RIZZOLLA, L.
"UTILIZATION OF NASA LEWIS MOBILE TERMINALS FOR THE HERMES SATELLITE," DEC
1977, TECHNICAL MEMORANDUM.
- 790 JACKSON, H.D.; FIALA, J.
"A DIGITALLY IMPLEMENTED COMMUNICATIONS EXPERIMENT UTILIZING THE HERMES (C
TS) SATELLITE," DEC 1977, TECHNICAL MEMORANDUM.
- 791 SANFORD, G.G.
"STEERABLE BEAM ARRAY ANTENNA FOR USE IN ATS-6 TEST PROGRAM," MAY 1976, BALL
BROS. RESEARCH CORP., P.O. BOX 1062, BOULDER, COLORADO, 80302.
- 792 PAGHS, I.
"HERMES (THE COMMUNICATIONS TECHNOLOGY SATELLITE) ITS PERFORMANCE AND APPL
ICATION, VOLUMES 1, 2, AND 3," DEC 1977.
- 793 DONOUGHE, P.L.
"CTS UNITED STATES USERS MEETING #20," 7 MAR 1978, TECHNICAL REPORT.
- 794 RYAN, M.G.
"STAFF TRAINING BY SATELLITE," MAR 1976.
- 795 UNKNOWN
"A SUBMISSION FOR THE EXTENSION OF THE UNIVERSITY OF THE SOUTH PACIFIC SAT
ELLITE COMMUNICATION EXPERIMENT IN 1978 AND 1979," MAY 1977, UNIVERSITY OF T
HE SOUTH PACIFIC, SUVA, FIJI, PROPOSAL.
- 796 FILEP, R.T.; JOHANSEN, P.A.
"SATELLITES AND PUBLIC SERVICE: AN ANNOTATED BIBLIOGRAPHY AND ANALYSIS," JA
N 1978, UNIVERSITY OF SOUTHERN CALIFORNIA, UNIVERSITY PARK, LOS ANGELES, CA
L., 90007, BIBLIOGRAPHY.
- 797 BRUSSAARD, G.
"OUTLINE OF ATS-6 PROPAGATION MEASUREMENTS OVER EUROPE," DEC 1976, PAPER.
- 798 WATSON, P.A.
"A SUMMARY AND ASSESSMENT OF THE 20/30 GHZ ATS-6 PROPAGATION DATA COLLECTE
D DURING THE EUROPEAN PHASE," JAN 1978, ESTEC, NOORDWIJK, THE NETHERLANDS, PA
PER.
- 799 FISHER, A.D.; MOROSE, L.
"C.T.S./PROJECT IRON STAR," APR 1978, ALBERTA NATIVE COMMUNICATIONS SOCIETY,
EDMONTON, ALBERTA, CANADA, TECHNICAL REPORT.

- 800 MARSTEN, R.B.
"SERVICE NEEDS AND SYSTEMS ARCHITECTURE IN SATELLITE COMMUNICATIONS," MAY 1 1977, JOURNAL ARTICLE.
- 801 SYRACUSE RESEARCH CORPORATION
"INSTRUCTIONAL TELEVISION: A COMPARATIVE STUDY OF SATELLITES AND OTHER DELIVERY SYSTEMS," NOV 1976, EDUCATIONAL POLICY RESEARCH CENTER, SYRACUSE RESEARCH CORP., SYRACUSE, N.Y. 13210, TECHNICAL REPORT.
- 802 BOSTIAN, C.W.; HOLT, S.B.; KAUFFMAN, S.R.; MANIS, E.A.; MARSHALL, R.E.; STUTZMAN, W.L.; WILEY, P.H.
"RAIN DEPOLARIZATION AND ATTENUATION MEASUREMENTS AT 11.7, 19.04, AND 28.5 GHz: A DESCRIPTION OF THE EXPERIMENT AND SOME PRELIMINARY RESULTS," 1976, ELECTRICAL ENGINEERING DEPT., VIRGINIA POLYTECHNIC INSTITUTE, BLACKSBURG, VA. 24061, TECHNICAL REPORT.
- 803 TAYLOR, D.P.; OGLETREE, S.T.; CHAN, H.C.; HAYKIN, S.S.
"A HIGH SPEED DIGITAL MODEM FOR EXPERIMENTAL WORK ON THE COMMUNICATIONS TECHNOLOGY SATELLITE," 1977, DEPT. OF ELECTRICAL ENGINEERING, MCMASTER UNIVERSITY, HAMILTON, ONTARIO, JOURNAL ARTICLE.
- 804 DORNBRAND, HARRY; JOHNSTON, W.A., JR.
"THE ATS-6 EXPERIMENT AND THE FUTURE OF BROADCAST SATELLITES," 1976, FAIRCHILD SPACE & ELECTRONICS CO., GERMANTOWN, MD., TECHNICAL REPORT.
- 805 HOUSE, A.M.; MCNAMARA, W.C.
"REPORT ON MEMORIAL UNIVERSITY OF NEWFOUNDLAND'S EXPERIMENTAL USE OF THE COMMUNICATIONS TECHNOLOGY SATELLITE HERMES IN TELEMEDICINE," JUL 1978, MEMORIAL UNIVERSITY OF NEWFOUNDLAND, TECHNICAL REPORT.
- 806 SIDFORD, M.J.
"PERFORMANCE OF AN L-BAND AEROSAT ANTENNA SYSTEM FOR AIRCRAFT," JUN 1975, TECHNICAL REPORT.
- 807 SOPHIANPOULOS, A.; MILLS, M.
"MEDICINE IN THE NORTH: A UNIQUE EXPERIMENT," 1976, BELL-NORTHERN RESEARCH, JOURNAL ARTICLE.
- 808 SHENK, W.E.; RODGERS, E.B.
"NIMBUS3/ATS-3 OBSERVATIONS OF THE EVOLUTION OF HURRICANE CAMILLE," APR 1978, JOURNAL ARTICLE.
- 809 CHINNICK, J.H.; BURTT, D.
"CANADIAN AERONAUTICAL SATELLITE TESTS USING THE ATS-6 SATELLITE, 1974-1975," FEB 1978, TECHNICAL REPORT.
- 810 BELEV, W.W.; DISTLER, A.S.; RAVENCROFT, F.I.; SOLOMON, S.I.
"THE PUBLIC SERVICE-COMMUNICATIONS TECHNOLOGY SATELLITE SYSTEM EVALUATION PLAN," DEC 1976, THE MITRE CORPORATION, METREK DIVISION, MCLEAN, VA. 22101, TECHNICAL REPORT.
- 811 DUNCOMBE, C.B.; ENGELS, P.D.; FOLEY, A.E.; KRAEMER, J.H.; MAURO, P.G.
"TRANSPORTATION SYSTEMS CENTER/U.S. COAST GUARD L-BAND MARITIME SATELLITE TEST PROGRAM," JUN 1975, DOT, UNITED STATES COAST GUARD, CAMBRIDGE, MA. 02142, TECHNICAL REPORT.

- 812 MORGAN, R.P.
"APPLICATIONS OF COMMUNICATIONS SATELLITES IN HIGHER EDUCATION." MAY 1976, CENTER FOR DEVELOPMENT TECHNOLOGY, WASHINGTON UNIVERSITY, ST. LOUIS, MISSOURI, 63130, TECHNICAL REPORT, ED 134 235.
- 813 UNKNOWN
"DESIGN FOR AN ANALYSIS AND ASSESSMENT OF THE EDUCATION SATELLITE COMMUNICATIONS DEMONSTRATION: FINAL REPORT." 17 MAY 1974, PRACTICAL CONCEPTS INCORPORATED, 1030 FIFTEENTH STREET, N.W., SUITE 940, WASHINGTON, D.C., 20005, TECHNICAL REPORT, ED 093 330.
- 814 FITZPATRICK, J.L.; MERTENS, D.M.
"FOLLOW-UP STUDIES OF THE APPALCHIAN EDUCATION SATELLITE PROJECT EXPERIMENTAL PHASE." JUL 1977, RESOURCE COORDINATING CENTER, UNIVERSITY OF KENTUCKY, LEXINGTON, KENTUCKY, TECHNICAL REPORT, ED 148 312.
- 815 MECHT, K.A.
"THE DEVELOPMENT OF A CHRONOLOGY OF CRITICAL EVENTS AS USED IN THE STUDY OF ATS-6 EDUCATIONAL DEMONSTRATION IN ALASKA: AN ALTERNATIVE METHOD TO FIELD WORK FOR PROGRAM EVALUATION AND THE GENERATION OF POLICY ISSUES." APR 1976, CENTER FOR NORTHERN EDUCATIONAL RESEARCH, UNIVERSITY OF ALASKA, FAIRBANKS, ALASKA, 99701, PAPER, ED 143 710.
- 816 UNKNOWN
"INTENSIVE EVALUATION OF SATELLITE TV IMPACT ON FOUR ALASKAN VILLAGES." MAY 1974, PRACTICAL CONCEPTS INCORPORATED, 1030 FIFTEENTH STREET, N.W., SUITE 940, WASHINGTON, D.C., 20005, TECHNICAL REPORT, ED 093 329.
- 817 HARDING, L.; BRAMBLE, L.J.; MARION, R.
"USER RATINGS OF INSTRUCTIONAL ACTIVITIES: ELEMENTARY CAREER EDUCATION, SUMMER 1974." JUL 1975, RESOURCES COORDINATING CENTER, UNIVERSITY OF KENTUCKY, LEXINGTON, KENTUCKY, TECHNICAL REPORT, ED 114 065.
- 818 ENGELS, P.D.
"MARITIME COMMUNICATION EXPERIMENTS AND SEARCH-AND-RESCUE EVALUATIONS WITH THE NASA ATS-6 SATELLITE." MAY 1976, U.S. DEPARTMENT OF TRANSPORTATION, TRANSPORTATION SYSTEMS CENTER, KENDALL SQUARE, CAMBRIDGE, MA, 02142, TECHNICAL REPORT, AD A055621, CG-D-69,77,1.
- 819 RODGER, M.; BRAMBLE, L.J.; WETTER, R.; WHITTON, C.
"USER RATINGS OF INSTRUCTIONAL ACTIVITIES: DIAGNOSTIC AND PRESCRIPTIVE READING INSTRUCTION, SUMMER, 1974." JUL 1975, RESOURCES COORDINATING CENTER, UNIVERSITY OF KENTUCKY, LEXINGTON, KENTUCKY, TECHNICAL REPORT, ED 114 064.
- 820 DIAMBRA, M.M.; GULLIFORD, N.L.; MORWITZ, S.P.; WHILTSHIRE, R.B.
"VIDAC: A NEW TECHNOLOGY FOR INCREASING THE EFFECTIVENESS OF TELEVISION DISTRIBUTION NETWORKS: REPORT ON A FEASIBILITY STUDY OF A CENTRAL LIBRARY 'INTEGRATED MEDIA' SATELLITE DELIVERY SYSTEM." SEPT 1975, WESTINGHOUSE ELECTRIC CORPORATION, PRODUCT DESIGN LABORATORY, PITTSBURGH, PA, TECHNICAL REPORT, ED 114 127.
- 821 POTTER, J.G.
"STD UPLINK COMPLEX SATELLITE TECHNOLOGY DEMONSTRATION." 1975, FEDERATION OF ROCKY MOUNTAIN STATES, INC., DENVER, COLORADO, TECHNICAL REPORT, EC 115 238.

- 822 BYSTROM, J.W. '
"SATELLITE COMMUNICATION FOR SOCIAL DEVELOPMENT." MAR 1976, PEACESAT, UNIVERSITY OF HAWAII, HONOLULU, HAWAII, JOURNAL ARTICLE.
- 823 MERTENS, D.M.
"DEVELOPMENT, DELIVERY AND EVALUATION OF AESP'S VISUAL LEARNING COURSE." AUG 1977, RESOURCES COORDINATING CENTER, UNIVERSITY OF KENTUCKY, LEXINGTON, KENTUCKY, TECHNICAL REPORT, ED 146 908.
- 824 NORMOOD, F.W.; WITHERSPOON, J.P.
"COMMUNICATION SATELLITES FOR PUBLIC SERVICE." OCT 1977, PUBLIC SERVICE SATELLITE CONSORTIUM, SAN DIEGO, CA, SYMPOSIUM PRESENTATION, AIAA:A77-51387.
- 825 DIJK, J.; MAANDERS, E.J.
"ATS-6 SATELLITE 30 GHZ PROPAGATION MEASUREMENTS DURING HEAVY THUNDERSTORMS." APR 1977, JOURNAL ARTICLE, 77A 36387.
- 826 BLOCK, C.; FOOTE, D.; MAYO, J.
"A CASE STUDY OF INDIA'S SATELLITE INSTRUCTIONAL TELEVISION PROJECT (SITE)." JAN 1977, INSTITUTE FOR COMMUNICATION RESEARCH, STANFORD UNIVERSITY, CA. TECHNICAL REPORT, PN-AAD-648.
- 827 CASEY-STAMMER, A.E.
"THE HERMES COMMUNICATIONS TECHNOLOGY SATELLITE PROJECT." JAN 1977, DEPARTMENT OF COMMUNICATIONS, OTTAWA, ONTARIO, CANADA, TECHNICAL REPORT.
- 828 CASEY-STAMMER, A.E.
"A DISCUSSION OF CANADIAN TELEHEALTH CARE EXPERIMENTS CONDUCTED WITH THE HERMES SATELLITE." 12-17 SEP 1976, SOCIAL POLICY AND PROGRAM BRANCH, DEPARTMENT OF COMMUNICATIONS, OTTAWA, ONTARIO, CANADA, PAPER.
- 829 KAHN, A.; NUNNALLY, M.
"CONDUCTING A TELECONFERENCING EXPERIMENT ORIENTED TO PRIVATE INDUSTRY APPLICATIONS VIA COMMUNICATIONS TECHNOLOGY SATELLITE." FEB 1977, WESTINGHOUSE ELECTRIC CORPORATION, BALTIMORE, MARYLAND, TECHNICAL REPORT, FIS-77-4002.
- 830 CAREY, L.S.; RUSSELL, E.S.
"CANADIAN TELEMEDICINE EXPERIMENT U-6." UNIVERSITY OF WESTERN ONTARIO AND LONDON HEALTH ASSOCIATION (UNIVERSITY HOSPITAL), TECHNICAL REPORT.
- 831 MULAY, V.
"CASE STUDY OF AN INSERVICE TEACHER TRAINING PROGRAMME FOR PRIMARY TEACHERS IN SCIENCE USING A MULTI-MEDIA PACKAGE IN SITE." 1977, JOURNAL ARTICLE.
- 832 FILEP, R.T.; ORVIK, J.M.; FOOTE, D.R.
"COMMUNICATION IN THE FAR NORTH." 1977, JOURNAL ARTICLE.
- 833 DONOUGHE, P.L.
"PROCEEDINGS OF THE JOINT UNITED STATES-CANADIAN EXPERIMENTS MEETING-COMMUNICATIONS TECHNOLOGY SATELLITE (HERMES)." SEP 1978, COMMUNICATIONS TECHNOLOGY SATELLITE (HERMES) JOINT EXPERIMENTS CONFERENCE, PROCEEDINGS.
- 834 SHAMASKIN, R.B.
"COMMUNICATIONS SATELLITES AND MEDICINE." MAY 1977, JOURNAL ARTICLE.

- 835 FRIMAN, E.
"THE NEW AGE OF MEDICAL TELEVISION NETWORKS." MAY 1977, JOURNAL ARTICLE.
- 836 FOOTE, D.R.
"SATELLITE COMMUNICATIONS FOR RURAL HEALTH CARE IN ALASKA." 1977, JOURNAL ARTICLE, OAT-02981.
- 837 HEGWOOD, R.B.
"DATA COLLECTION SYSTEMS APPLICATION TO REMOTE CARDIAL MONITORING." MAR 1975, PROPOSAL.
- 838 FREEMAN, K.G.
"EXPERIMENTAL DIRECT BROADCAST RECEPTION OF 12 GHZ TELEVISION SIGNALS FROM THE CANADIAN COMMUNICATIONS TECHNOLOGY SATELLITE." MAY 1977, JOURNAL ARTICLE.
- 839 CARTER, L.J.
"VIDEOCONFERENCES VIA SATELLITE: OPENING CONGRESS TO THE PEOPLE?" 1977, THE GEORGE WASHINGTON UNIVERSITY, WASHINGTON, D.C., 20052, JOURNAL ARTICLE.
- 840 HENDERSON, E.; BRECEN, T.C.
"VISUAL TELECONFERENCING EXPERIMENTS VIA A 14/12 GHZ SATELLITE SYSTEM." APR 1978, DEPARTMENT OF HEALTH, EDUCATION AND WELFARE, NATIONAL LIBRARY OF MEDICINE, BETHESDA, MARYLAND, PAPER, A76-32915.
- 841 SINGH, J.P.
"THE ATS-6 SATELLITE INSTRUCTIONAL TELEVISION EXPERIMENT (SITE) IN INDIA." 1976, INDIAN SPACE RESEARCH ORGANIZATION, BANGALORE, INDIA, JOURNAL ARTICLE, A77-28302.
- 842 HENDERSON, E.
"ELEMENTS OF A BROADBAND BIOMEDICAL COMMUNICATIONS NETWORK." SEP 1976, NATIONAL LIBRARY OF MEDICINE, BETHESDA, MARYLAND, PAPER, A77-49861.
- 843 THOMA, G.R.
"EARTH TERMINAL DESIGN CONSIDERATIONS FOR BIOMEDICAL COMMUNICATIONS VIA CT S." SEP 1976, NATIONAL LIBRARY OF MEDICINE, BETHESDA, MARYLAND, PAPER, A77-49862.
- 844 BROWN, D.L.; GUERIN, Y.; MELCHIOR, G.; ABSCLONNE, F.
"ATS-6 EUROPEAN L-BAND AERONAUTICAL EXPERIMENTS." SEP 1976, EUROPEAN SPACE RESEARCH AND TECHNOLOGY CENTRE, NOORDWIJK, NETHERLANDS, PAPER, A77-49908.
- 845 CHAN, S.; MESSICK, J.
"TELECOMMUNICATION IN MEDICAL EDUCATION AND HEALTH CARE--PROFILE OF 33 PROJECTS." 1975, OFFICE OF MEDICAL EDUCATION, RESEARCH AND DEVELOPMENT, FEE HALL EAST, MICHIGAN STATE UNIVERSITY, EAST LANSING, MICHIGAN, 48823, TECHNICAL REPORT.
- 846 SHENK, W.E.; STEPHANIDES, C.C.; SONNER, G.E.; HOWELL, L.D.
"THE GEOSYNCHRONOUS VERY HIGH RESOLUTION RADIOMETER." NOV 75, NASA/ESFC, GREENBELT, MD, JOURNAL ARTICLE.

- 847 GALANE, IRMA B.
"FCC PARTICIPATION IN THE JOINT U.S.-CANADIAN COMMUNICATIONS TECHNOLOGY SATELLITE EXPERIMENT." FEB 79, RESEARCH AND STANDARDS DIVISION, OFFICE OF CHIEF ENGINEER, FEDERAL COMMUNICATIONS COMMISSION, WASHINGTON, D.C., 20554, TECHNICAL REPORT, NTIS: PB 293288, ORIGINATOR: FCC/OCE RS 79-02.
- 848 DUNCAN, R.A., (ED.)
"BIOMEDICAL COMMUNICATIONS EXPERIMENTS: EXECUTIVE SUMMARY." JAN 79, MITRE CORPORATION, METREK DIVISION, 1820 DOLLEY MADISON BLVD., MCLEAN, VA, 22102, SUMMARY, ORIGINATOR: MTR-79W00033, OTHER: PB 294 405.
- 849 DUNCAN, R.A.; PAQUETTE, C.A.; PARNES, J.H.; STRAUCH, A.B.
"BIOMEDICAL COMMUNICATIONS EXPERIMENTS: SYSTEM EVALUATION." JAN 79, MITRE CORPORATION, METREK DIVISION, 1820 DOLLEY MADISON BLVD., MCLEAN, VA, 22102, TECHNICAL REPORT, OTHER: PB-295-549.
- 850 MALOY, J.E.; PROVENCHER, C.E., JR.; LEROY, B.E.; BRALEY, R.C.; SHUMAKER, J.A.
"SPACECRAFT DESIGN SENSITIVITY FOR A DISASTER WARNING SATELLITE SYSTEM." FEB 77, LEWIS RESEARCH CENTER, NATIONAL AERONAUTICS AND SPACE ADMINISTRATION, CLEVELAND, OHIO, 44135, TECHNICAL MEMORANDUM, NASA: TM X-3469, OTHER: N 77 17820.
- 851 WOOD, F.B.; COATES, V.T.; CHAPTRAND, R.L.; ERICSON, R.F.
"VIDEOCONFERENCING VIA SATELLITE: OPENING CONGRESS TO THE PEOPLE." FEB 78, THE GEORGE WASHINGTON UNIVERSITY PROGRAM OF POLICY STUDIES IN SCIENCE AND TECHNOLOGY, WASHINGTON, D.C., 20052, SUMMARY REPORT, NASA: CR-157258.
- 852 DAS, A.
"THE PRESENT STATUS OF BROADCASTING SATELLITES." JUL 75, FEDERAL COMMUNICATIONS COMMISSION, 1919 M ST., N.W., WASHINGTON, D.C., 20554, NTIS: PB-245-563, ORIGINATOR: FCC/OCE RS75-06
- 853 WESTINGHOUSE ELECTRIC CORPORATION
"CTS COMMUNICATIONS LINK CHARACTERIZATION EXPERIMENT." AUG 77, WESTINGHOUSE ELECTRIC CORPORATION, DEFENCE AND ELECTRONIC SYSTEMS CORPORATION, P.O. BOX 1693, BALTIMORE, MARYLAND, 21203, TECHNICAL REPORT, NASA: CR-156801.
- 854 STUTZMAN, W.L.; BOSTIAN, C.W.
"A MILLIMETER WAVE ATTENUATION AND DEPOLARIZATION EXPERIMENT USING THE COMSTAR AND CTS SATELLITES." 15 APR 79, VIRGINIA POLYTECHNIC INSTITUTE AND STATE UNIVERSITY DEPARTMENT OF ELECTRICAL ENGINEERING, BLACKSBURG, VIRGINIA, 24061, TECHNICAL REPORT, ORIGINATOR: SATCOM-79-20, OTHER: ADA069583.
- 855 UNKNOWN (PUBLIC HEALTH REPORTS).
"VA TO EXPAND EXPERIMENTS WITH SATELLITE COMMUNICATION FOR MEDICAL CONSULTATION." 1976, PUBLIC HEALTH REPORTS, JOURNAL ARTICLE.
- 856 ARN, CAPTAIN ROBERT M., USAF
"ANVIL AREA AND BRIGHTNESS CHARACTERISTICS AS SEEN FROM GEOSYNCHRONOUS SATELLITES." 1975, AIR FORCE INSTITUTE OF TECHNOLOGY STUDENT, COLORADO STATE UNIVERSITY, FORT COLLINS, COLORADO, TECHNICAL REPORT, NTIS: AD-A 018955.

- 857 JANKY, J.M.; POTTER, J.G.
"THE ATS-6 HEALTH EDUCATION TELECOMMUNICATION (HET) EXPERIMENT." FEDERATION OF ROCKY MOUNTAIN STATES, DENVER, COLORADO, TECHNICAL MEMORANDUM, AIAA: A77-28303.
- 858 DARTT, D.G.
"OBJECTIVE TROPICAL STORM PARAMETERS FROM SATELLITE CLOUD PATTERNS." 2 OCT 75, RESEARCH DIVISION, CONTROL DATA CORPORATION, BOX 1249, MINNEAPOLIS, MN, 55440 TECHNICAL REPORT, NTIS: AD-A C22650.
- 859 MORGAN, R.P.; SINGH, J.P.; ROTHENBERG, D.; ROBINSON, B.E.
"LARGE SCALE EDUCATION TELECOMMUNICATIONS SYSTEMS FOR THE U.S.: AN ANALYSIS OF EDUCATIONAL NEEDS AND TECHNICAL OPPORTUNITIES." APR 75, CENTER FOR DEVELOPMENT TECHNOLOGY, WASHINGTON UNIVERSITY, ST. LOUIS, MISSOURI, 63130, TECHNICAL MEMORANDUM, NTIS: N75-22182, NASA: CR-142619.
- 860 NORWOOD, F.W.
"SATELLITES FOR PUBLIC SERVICE--BARRIERS TO TECHNOLOGY TRANSFER." SEPT. 1979, FRANK W. NORWOOD, JOINT COUNCIL ON EDUCATIONAL TELECOMMUNICATIONS, 1126 SIXTEENTH STREET, N.W., WASHINGTON, D.C. 20036, SYMPOSIUM PRESENTATION, AIAA: A79-53395.
- 861 THOMPSON, W.I. III
"AN AERONAUTICAL AND MARITIME SATELLITE TECHNOLOGY BIBLIOGRAPHY." MAR 76, U.S. DEPARTMENT OF TRANSPORTATION, TRANSPORTATION SYSTEMS CENTER, KENDALL SQUARE, CAMBRIDGE, MAINE, 02142, BIBLIOGRAPHY, NTIS: ADA023069.
- 862 GERRISH, HAROLD P.
"SATELLITE AND RADAR ANALYSIS OF MESOSCALE WEATHER SYSTEMS." FEB 75, DIVISION OF ATMOSPHERIC SCIENCE, ROSENTHAL SCHOOL OF MARINE AND ATMOSPHERIC SCIENCE, UNIVERSITY OF MIAMI, CORAL GABLES, FLORIDA, 33124, TECHNICAL REPORT, OTHER: ADA019311.
- 863 MURRAY, C.W., JR.; RANGASWAMY, S.
"RECOVERY OF ATMOSPHERIC REFRACTIVITY PROFILES FROM SIMULATED SATELLITE-TO-SATELLITE TRACKING DATA." JUNE 1975, GODDARD SPACE FLIGHT CENTER, GREENBELT, MARYLAND, TECHNICAL MEMORANDUM, NTIS: N76-12563, NASA: NASA-TM-X-71016, X-932-75-168.
- 864 ISLEY, W.C.; ENDRES, D.L.
"ATS-6 INTERFEROMETER." NOV 75, JOURNAL ARTICLE.
- 865 SCHMID, P.E.; TRUDELL, B.J.; VONBUN, F.O.
"ATS-6 SATELLITE-TO-SATELLITE TRACKING DATA RELAY EXPERIMENT." NOV 1975, NASA/GSFC, GREENBELT, MD, JOURNAL ARTICLE.
- 866 WOLFF, E.A., EDITOR
"PUBLIC SERVICE COMMUNICATIONS SATELLITE USER REQUIREMENTS WORKSHOP." JAN 7, COMMUNICATIONS AND NAVIGATION DIVISION, GODDARD SPACE FLIGHT CENTER, GREENBELT, MARYLAND, 20771, TECHNICAL MEMORANDUM, NTIS: N77-20290, NASA: TM-X-74629.

- 867 CORNIER, R.V.
"PHOTOGRAPHS FROM METEOROLOGICAL SATELLITES (A COLLECTION OF THE PICTURE C
F THE MONTH SERIES FROM "MONTHLY WEATHER REVIEW", JANUARY 1963 TO MAY 1967
1)." JUN 67, NAVY WEATHER RESEARCH FACILITY, BUILDING R-48, NAVAL AIR STATI
ON, NORFOLK, VIRGINIA, 23511, TECHNICAL REPORT, ORIGINATOR: NWRP 33-0667-1
25, OTHER: AD822348.
- 868 CHENEY, L.A.; ANDERSON, R.E.; MCGEE, C.E.; RAKOWSKI, R.; MORTLOCK, C.E.
"SATELLITE/BUOY READOUT PROGRAM." GENERAL ELECTRIC CO., MISSILE AND SPACE
DIVISION, P.O. BOX 8555, PHILADELPHIA, PA, 19101, TECHNICAL REPORT, ORIGIN
ATOR: 69SD2130, OTHER: AC 858145.
- 869 LASEUR, N.E.; JORDAN, C.L.; GARSTANG, K.; KRISHNAMURTI, T.N.; HSUEH, Y.
"A MULTI-SCALE RESEARCH PROGRAM IN TROPICAL METEOROLOGY." AUG 69, DEPARTME
NT OF METEOROLOGY, FLORIDA STATE UNIVERSITY, TALLAHASSEE, FLORIDA, 32306,
TECHNICAL REPORT, ORIGINATOR: OSD-1366, OTHER: AD864696.
- 870 VONBUN, F.O.; KAHN, W.D.; BRYAN, J.W.; SCHMID, P.E.; WELLS, W.T.; CONRAC,
T.D.
"GRAVITY ANOMALY DETECTION-APOLLO/SOYUZ." DEC 75, GODDARD SPACE FLIGHT CENT
ER, GREENBELT, MARYLAND, 20771, TECHNICAL MEMORANDUM, NASA: TM-X-71069.
- 871 JOHN, D.; KATZ, R.
"ORGANIZING TO USE A NEW TELECOMMUNICATIONS TECHNOLOGY: COMMUNICATIONS SA
TELLITES AND VOCATIONAL REHABILITATION." SEPT 77, CENTER FOR SOCIAL RESEAR
CH AND DEVELOPMENT, DEPARTMENT OF INDUSTRIAL ECONOMICS, DENVER RESEARCH IN
STITUTE, UNIVERSITY OF COLORADO, DENVER, COLORADO, 80208, TECHNICAL REPORT
, NTIS: PB-282 283, ORIGINATOR: C3PO.
- 872 LEROY, B.E.
"GLOBAL DISASTER SATELLITE COMMUNICATIONS SYSTEM FOR DISASTER ASSESSMENT A
ND RELIEF COORDINATION." FEB 79, NATIONAL AERONAUTICS AND SPACE ADMINISTRA
TION, LEWIS RESEARCH CENTER, CLEVELAND, OHIO, 44135, TECHNICAL MEMORANDUM,
NTIS: N79-20176, NASA: TM 79105, ORIGINATOR: E-9929.
- 873 GOODMAN, J.M.; WATKINS, P.L.; MYERS, C.G.; HOGG, R.
"UHF SCINTILLATION CHARACTERISTICS AS OBSERVED FROM KEFLAVIK, ICELAND-PREL
IMINARY REPORT." 28 FEB 78, NAVAL RESEARCH LABORATORY, WASHINGTON, D.C., 2
0375, TECHNICAL REPORT, ORIGINATOR: NRL REPORT 8160, OTHER: ADA05576C.
- 874 HAJELA, D.P.
"IMPROVED PROCEDURES FOR THE RECOVERY OF 5 DEGREE MEAN GRAVITY ANOMALIES F
ROM ATS-6/GEOS-3 SATELLITE TO SATELLITE RANGE-RATE OBSERVATIONS USING LEAS
T SQUARES COLLOCATION." SEPT 78, DEPARTMENT OF GEODETIC SCIENCE, THE OHIO
STATE UNIVERSITY, 1958 NEIL AVENUE, COLUMBUS, OHIO, 43210, TECHNICAL REPO
T, ORIGINATOR: APGL-TR-78-0260, OTHER: ADA063990.
- 875 BRISKEN, A.F.
"L-BAND TONE-CODE-DATA TRANSPONDER CALIBRATION." JAN 1977, GENERAL ELECTRI
C COMPANY, CORPORATE RESEARCH AND DEVELOPMENT, SCHENECTADY, N.Y., TECHNICA
L REPORT, NTIS: N77-21276; NASA: NASA-CR-152471, ORIGINATOR NO.: SRC-77-03
8.

- 876 BRANDLI, LT. COL. HENRY W., USAF
"SATELLITE METEOROLOGY." AUG 76, HEADQUARTERS AIR WEATHER SERVICE (MAC), 5
COTT AIR FORCE BASE, ILLINOIS, 62225, TECHNICAL REPORT, ORIGINATOR: AWS-TP
-76-264, OTHER: AGA-067090.
- 877 DONOUGHE, P.L.
"COMMUNICATIONS TECHNOLOGY SATELLITE UNITED STATES USERS MEETING #22." APR
79, NATIONAL AERONAUTICS AND SPACE ADMINISTRATION, LEWIS RESEARCH CENTER,
CLEVELAND, OHIO, 44135, INDEX OF USERS.
- 878 DUNCOMBE, C.B.
"RESULTS OF AEROSAT CHANNEL SIMULATION TESTS Q-M/PSK VOICE/DATA MODEM TSC
RANGING MODEM.", U.S. DEPARTMENT OF TRANSPORTATION, TRANSPORTATION SYSTEMS
CENTER, KENDALL SQUARE, CAMBRIDGE, MAINE, 02142, TECHNICAL REPORT, ORIGIN
ATOR: FAA-RD-76-103.
- 879 DONOUGHE, P.L.; HUNCZAK, W.R.; GURSKI, G.S.
"COMMUNICATIONS TECHNOLOGY SATELLITE-UNITED STATES EXPERIMENTS AND DISASTE
R COMMUNICATIONS APPLICATIONS." OCT 78, NATIONAL AERONAUTICS AND SPACE ADM
INISTRATION, LEWIS RESEARCH CENTER, CLEVELAND, OHIO, 44135, TECHNICAL MEMO
RANDUM, NTIS: NT9-23999, NASA: TM-79109, ORIGINATOR: E-9935.
- 880 COMMUNICATIONS RESEARCH CENTER.
"HERMES/CTS CONSOLIDATED LIST OF PAPERS AND REPORTS." APR 79, COMMUNICATIO
N RESEARCH CENTER (CANADA), OTTAWA, ONTARIO, CANADA, BIBLIOGRAPHY.
- 881 GOLAB, J.; DUNCOMBE, C.
"PERFORMANCE OF A Q-M/PSK DATA MODEM OPERATING IN A VOICE AND DATA MODE TH
ROUGH THE ATS-6 SATELLITE." FEB 78, U.S. DEPARTMENT OF TRANSPORTATION, TRA
NSPORTATION SYSTEMS CENTER, KENDALL SQUARE, CAMBRIDGE, MAINE, 02142, TECHN
ICAL REPORT, ORIGINATOR: FAA-RD-78-6, OTHER: ADA053188.
- 882 SLACK, F.F.
"ATS-6 40-AND 360-MHZ DIFFERENTIAL PHASE MEASUREMENTS." 2 JUN 76, AIR FORC
E GEOPHYSICAL LABORATORY/LIR, HANSCOM AFB, MAINE, 01731, TECHNICAL REPORT,
ORIGINATOR: AFGL-TR-76-0119, OTHER: ADA03C739.
- 883 BLANK, H.A.; GOLDEN, T.S.
"ANALYSIS OF VHF/UHF FREQUENCY DEPENDENCE, SPACE, AND POLARIZATION PROPERT
IES OF IONOSPHERIC SCINTILLATION IN THE EQUATORIAL REGION." COMPUTER SCIEN
CES CORPORATION, FALLS CHURCH, VA 22046, TECHNICAL REPORT, AIAA:A73-38741.
- 884 FRITZ, T.A.; CORRIGAN, J.P.
"SIGNIFICANT INITIAL RESULTS FROM THE ENVIRONMENTAL MEASUREMENTS EXPERIMEN
T ON ATS-6." DECEMBER 1977, NASA/GSFC, GREENBELT, MD, TECHNICAL REPORT.
- 885 ARNOLDY, R.L.
"ATS-6 LOW ENERGY ELECTRON-PROTON EXPERIMENT." NOVEMBER 1975, DEPT OF PHYSI
CS, UNIV OF NEW HAMPSHIRE, DURHAM, NH, JOURNAL ARTICLE.
- 886 FRITZ, T.A.; CESSNA, J.R.
"ATS-6 NOAA LOW ENERGY PROTON EXPERIMENT." NOVEMBER 1975, SPACE ENVIRONMEN
T LAB, ENVIRONMENTAL RESEARCH LABS, NATIONAL OCEANIC AND ATMOSPHERIC ADMIN
ISTRATION, BOULDER, CO, JOURNAL ARTICLE.

- 887 PAVLIKAS, G.A.; BLAKE, J.B.; IMHOTO, S.S.
"ATS-6 ENERGETIC PARTICLE RADIATION MEASUREMENT AT SYNCHRONOUS ALTITUDE."
NOVEMBER 1975, SPACE PHYSICS LABORATORY, THE AEROSPACE CORP, EL SEGUNDO, CA,
JOURNAL ARTICLE.
- 888 WALKER, R. J.; ERICKSON, K. N.; SWANSON, R.L.; WINCKLER, J. R.
"ATS-6 SYNCHRONOUS ORBIT TRAPPED RADIATION STUDIES WITH AN ELECTRON-PROTON
SPECTROMETER." NOVEMBER 1975, SCHOOL OF ASTRONOMY AND PHYSICS, UNIV OF MI
NESOTA, MINNEAPOLIS, MINN, JOURNAL ARTICLE.
- 889 MCILWAIN, C. E.; MAUK, B. M.
"ATS-6 VCSO AURORAL PARTICLES EXPERIMENT." NOVEMBER 1975, DEPT OF PHYSICS,
UNIV OF CALIFORNIA AT SAN DIEGO, LA JOLLA, CA, JOURNAL ARTICLE.
- 890 MASLEY, A.J.; SATTERBLOM, P.R.; PFITZER, K.A.
"ATS-6 SOLAR COSMIC RAY AND TRAPPED PARTICLE EXPERIMENT." NOVEMBER 1975, A
EROJET ELECTROSYSTEMS CO., AZUGA, CA, 91702, JOURNAL ARTICLE.
- 891 MCPHERSON, R.L.; COLEMAN, P.J.; SNARE, R.C.
"UCLA FLUXGATE MARNETOMETER." NOV 75, UNIVERSITY OF CALIFORNIA, LOS ANGELOS
, CALIFORNIA, JOURNAL ARTICLE.
- 892 BRISKEN, A.F.
"ATS-3 RANGING SUPPORT." JAN 77, GENERAL ELECTRIC COMPANY, CORPORATE RESEAR
CH AND DEVELOPMENT, SCHENECTADY, NEW YORK, TECHNICAL REPORT, NTIS: A77-212
75, NASA: NASA-CR-152470.
- 893 CARR, F.; SMITH, C.
"IONOSPHERIC PROPAGATION FACTORS STUDIES." 1972, CANADIAN RESEARCH CENTRE,
CANADA, INFORMAL NOTES.
- 894 CAMPBELL, R.J.
"HERMES DAMA EXPERIMENT." OCT 77, COMMUNICATIONS RESEARCH CENTRE, SPACE TEC
HNOLOGY AND APPLICATIONS BRANCH, OTTAWA, CANADA, TECHNICAL REPORT, NTIS: N
79-12269, ORIGINATOR: CRC-1309, OTHER: 207200.
- 895 DONNELLY, R.F.; FRITZ, R.B.
"ATS OBSERVATIONS OF SUDDEN INCREASES OF TOTAL ELECTRON CONTENT INDUCED BY
EUV AND X-RAY BURST OF SOLAR FLARES." SEP 75, WAVE PROPAGATION LABORATORY,
NOAA, ENVIRONMENTAL RESEARCH LABORATORY, BOULDER, COLORADO, 80302, TECHNICAL
REPORT, NTIS: PB 249588, ORIGINATOR: NOAA TR ERL 347-SEL 35.
- 896 GALLOWAY JR., H.L.
"SATELLITE INSTRUCTIONAL TELEVISION EXPERIMENT (SITE) REPORTS FROM THE NAS
A RESIDENT REPRESENTATIVE IN INDIA." MAY 76, NASA, GODDARD SPACE FLIGHT CE
NTER, GREENBELT, MARYLAND, 20771, TECHNICAL MEMORANDUM, NTIS: N76-31378, N
ASA: NASA-TM-X-74146.
- 897 PUBLIC SERVICE SATELLITE CONSORTIUM
"TECHNICAL ASSESSMENT OF PSSC-SUPPORTED EXPERIMENTS AND DEMONSTRATIONS FRO
M OCTOBER 1977 THROUGH MARCH 1978." APR 78, PUBLIC SERVICE SATELLITE CONSOR
TIUM, 2480 WEST 26TH AVENUE, SUITE 908, DENVER, COLORADO, 80211, TECHNICAL
REPORT, INDEX OF USERS, NTIS: N78-23129, NASA: NASA-CR-156751.

- 898 VOGEL, W.J.
"CTS ATTENUATION AND CROSS POLARIZATION MEASUREMENTS AT 11.7 GHZ."ELECTRIC
AL ENGINEERING RESEARCH LABORATORY, THE UNIVERSITY OF TEXAS AT AUSTIN, 101
DD BURNET ROAD, AUSTIN, TEXAS, 78758, TECHNICAL REPORT, NTIS: N79-16173, N
ASA: NASA-CR-159918.
- 899 HODGE, D.B.; THEOBOLD, D.M.
"OSU PARTICIPATION IN THE CTS COMMUNICATIONS LINK CHARACTERIZATION EXPERIM
ENT."DEC 76, THE OHIO STATE UNIVERSITY ELECTROSCIENCE LABORATORY, DEPARTME
NT OF ELECTRICAL ENGINEERING, COLUMBUS, OHIO, 43212, TECHNICAL REPORT, NTI
S: N77-25371, NASA: NASA-CR-152534, ORIGINATOR: ESL 4299-2.
- 900 THEOBOLD, D.M.; HODGE, D.B.
"THE OSU SELF-PHASED ARRAY FOR PROPAGATION MEASUREMENTS USING THE 11.7 GHZ
CTS BEACON."NOV 76, THE OHIO STATE UNIVERSITY ELECTROSCIENCE LABORATORY,
DEPARTMENT OF ELECTRICAL ENGINEERING, COLUMBUS, OHIO, 43213, TECHNICAL REP
ORT, NTIS: N77-24334, NASA: NASA-CR-152519, ORIGINATOR: ESL 42991.
- 901 LIU, A-S.
"ON THE DETERMINATION AND INVESTIGATION OF THE TERRESTRIAL IONOSPHERIC REF
RACTIVE INDICES USING GEOS-3/ATS-6 SATELLITE-TO-SATELLITE TRACKING DATA."
NOV 78, JET PROPULSION LABORATORY, TECHNICAL REPORT, NTIS: N78 33287, NASA
: NASA-CR-156848.
- 902 VONBUN, F.O.
"PROBING THE EARTH'S GRAVITY FIELD USING SATELLITE-TO-SATELLITE TRACKING (S
ST)."FEB 76, NASA, GODDARD SPACE FLIGHT CENTER, GREENBELT RD., GREENBELT,
MARYLAND, 20771, TECHNICAL MEMORANDUM, NTIS: N76-28716, NASA: NASA-TM-X-7
1142, ORIGINATOR: X-900-76-40.
- 903 SMITH, R.F.
"ATMOSPHERIC ATTENUATION OF MICROWAVE SATELLITE LINKS."JAN 75, SIGNALS RES
EARCH AND DEVELOPMENT ESTABLISHMENT, CHRISTCHURCH, DORCHESTER, ENGLAND, TE
CHNICAL REPORT, NTIS: N7530384, ORIGINATOR: 73C43, OTHER: ADA 012502.
- 904 WILLIAMS JR., L. (PROFESSOR)
"A RESEARCH FEASIBILITY STUDY PROPOSAL FOR CONDUCTING EXPERIMENTAL RESEARC
H IN CURRICULUM SHARING VIA COMMUNICATIONS TECHNOLOGY SATELLITE AMONG INST
TUTIONS HAVING LARGE MINORITY ENROLLMENTS."SEP 78, NORTH CAROLINA AGRICUL
TURAL AND TECHNICAL STATE UNIVERSITY, ELECTRICAL ENGINEERING DEPARTMENT, E
REENBORO, NORTH CAROLINA, 27411, PROPOSAL, NTIS: N79-15813, NASA: NASA-CR-
159903.
- 905 BRISTOR, C.L. (EDITOR)
"CENTRAL PROCESSING AND ANALYSIS OF GEOSTATIONARY SATELLITE DATA."MAR 75,
NATIONAL ENVIRONMENTAL SATELLITE SERVICE, NOAA, WASHINGTON, D.C., 20235, T
ECHNICAL MEMORANDUM, ORIGINATOR: COM-75-10853.
- 906 VONBUN, F.O.; KAHN, W.D.; WELLS, W.T.; CONRAD, T.D.
"GEODYNAMICS EXPERIMENT MA-120."DEC 77, NASA/GSFC, GREENBELT, MARYLAND, TE
CHNICAL REPORT, NASA: SP-412.
- 907 VONBUN, F.O.; KAHN, W.D.; WELLS, W.T.; CONRAD, T.D.
"GRAVITY ANOMALIES DETERMINED FROM TRACKING THE APOLLO-SOYUZ."DEC 77, NASA
/GSFC, GREENBELT, MARYLAND, 20771, TECHNICAL MEMORANDUM, NASA: TM 78031.

- 908 VONBUN, F.O.
"PROBING THE EARTH'S GRAVITY FIELD BY MEANS OF SATELLITE-TO-SATELLITE TRACKING."1977, NASA/GSFC, GREENBELT, MARYLAND, JOURNAL ARTICLE.
- 909 UNKNOWN
"COMPLETE BIBLIOGRAPHY OF PUBLICATIONS UNDER THE UNIVERSITY OF MINNESOTA A TS-6 SYNCHRONOUS ORBIT SATELLITE PROGRAM."1978, UNIVERSITY OF MINNESOTA, BIBLIOGRAPHY.
- 910 UMEKI, R.; LIU, C.H.; YEH, K.C.
"MULTIFREQUENCY STUDIES OF IONOSPHERIC SCINTILLATIONS."MAR 77, DEPT OF ELECTRICAL ENGINEERING, UNIVERSITY OF ILLINOIS, URBANA, ILLINOIS, 61801, JOURNAL ARTICLE.
- 911 VONBUN, F.O.; ARGENTIERO, P.D.; SCHMID, P.E.
"ORBIT DETERMINATION ACCURACIES USING SATELLITE-TO-SATELLITE TRACKING."NOV 78, NASA/GSFC, GREENBELT, MARYLAND, JOURNAL ARTICLE.
- 912 PFAFF, L.
"DISTANT TEACHING."WINTER 78, UNIVERSITY OF THE SOUTH PACIFIC, JOURNAL ARTICLE.
- 913 CARLISLE, R.D.B.
"IS THERE A SATELLITE IN YOUR FUTURE?."MAR 77, CHANGE, JOURNAL ARTICLE.
- 914 NORWOOD, FRANK W.
"BROADCAST SATELLITE: 'APPROPRIATE TECHNOLOGY' AVAILABLE NOW."WINTER 78, EXCHANGE, JOURNAL ARTICLE.
- 915 KEOUGH, GERTRUDE, R.N.
"SPACE SATELLITE IN HEALTH EDUCATION.", JOURNAL OF CONTINUING EDUCATION IN NURSING, JOURNAL ARTICLE.
- 916 DAVIS, K.C.; EKSTROM, P.A.
"ATS-6 MM-WAVE PROPAGATION EXPERIMENT FINAL REPORT ON BATTELLE-NORTHWEST PARTICIPATION IN THE ATS-6 MM-WAVE PROPAGATION EXPERIMENT."SEP 76, BATTELLE-NORTHWEST LABORATORIES, P.O. BOX 999, RICHLAND, WASHINGTON, 99352, NTIS: N77-24335, NASA: NASA-CR-152522.
- 917 BAKER, M.B.
"THE MCDONNELL DOUGLAS GEOPHYSICAL OBSERVATORY PROGRAM PROGRESS REPORT 13 (CONJUGATE POINT RIOMETER PROGRAM)."SEP 75, MCDONNELL DOUGLAS ASTRONAUTICS COMPANY, 5301 BOLSA AVENUE, HUNTINGTON BEACH, CALIFORNIA, 92647, TECHNICAL REPORT, NTIS: AG-AD17688, ORIGINATOR: AFCSR-TN-75-7300.
- 918 KLOBUCHAR, J.A.
"POLARIZATION OF VHF WAVES EMITTED FROM GEOSTATIONARY SATELLITES."1 NOV 75, AIR FORCE CAMBRIDGE RESEARCH LABORATORIES (LIR), HANSCOM AFB, MASSACHUSETTS 01731, TECHNICAL REPORT, ORIGINATOR: AFRL-TR-75-0642, OTHER: ACAC19603.

- 919 BOSTIAN, C.W.; MOLT, S.B., JR.; KAUFFMAN, S.R.; MANUS, E.A.; MARSHALL, R.E.; STUTZMAN, L.L.; WILEY, P.H.
"A DEPOLARIZATION AND ATTENUATION EXPERIMENT USING THE CTS SATELLITE. VOLUME 1. EXPERIMENT DESCRIPTION." 18 NOV 76, ELECTRICAL ENGINEERING DEPARTMENT, VIRGINIA POLYTECHNIC INSTITUTE & STATE UNIVERSITY, BLACKSBURG, VIRGINIA 24061, TECHNICAL REPORT, NTIS: N77-16199, NASA: NASA-CR-152422.
- 920 DUTTON, E.J.
"EARTH SPACE ATTENUATION PREDICTIONS FOR GEOSTATIONARY SATELLITE LINKS IN THE U.S.A." OCT 76, U.S. DEPARTMENT OF COMMERCE, NTIA/ITS-3, 325 BROADWAY, BOULDER, COLORADO 80303, TECHNICAL REPORT, NTIS: PB 289841, ORIGINATOR: NTIA REPORT 76-10.
- 921 BROWN, K.E.; NUSPL, P.P.
"EARLY OPERATIONAL EXPERIENCE WITH A NEW TMA SYNCHRONIZATION SYSTEM TAPPOU 6M CTS." OCT 76, COMMUNICATIONS RESEARCH CENTRE, DEPARTMENT OF COMMUNICATIONS, OTTAWA, CANADA, TECHNICAL NOTE, NTIS: N77-23294, ORIGINATOR: CRC-TN-682.
- 922 SESSIONS, W.B.; GOLDEN, T.S.
"SIMULTANEOUS L-BAND AND VHF IONOSPHERIC FADING EFFECTS AT THE GEOMAGNETIC EQUATOR." APRIL 1972, WESTINGHOUSE ELECTRIC CORPORATION, P.O. BOX 1693, BALTIMORE, MARYLAND 21203, TECHNICAL MEMORANDUM, NTIS: N73-21173, NASA: NASATM-X-65948, OTHER: X-810-72-227
- 923 DONOUGHE, P.L.
"CTS UNITED STATES USERS MEETING #15." AUG 76, PROGRESS REPORT.
- 924 BAKER, D.
"THE SOCIAL SATELLITE." 28 OCT 76, JOURNAL ARTICLE
- 925 GARRETT, M.B.; MULLEN, E.G.; ZIEMBA, E.; DEFOREST, S.E.
"MODELING OF THE GEOSYNCHRONOUS ORBIT PLASMA ENVIRONMENT-PART 2. ATS-5 AND ATS-6 STATISTICAL DATA." 30 NOV 78, SPACE PHYSICS DIVISION, AIR FORCE EEC PHYSICS LAB, HANSCOM AFB, MA, 01731, TECHNICAL REPORT, NTIS: N79-25637.
- 926 UNKNOWN
"DEVELOPING SATELLITE COMMUNICATIONS FOR PUBLIC SERVICE: PROSPECTS IN FOUR SERVICE AREAS." SEPT 77, PUBLIC SERVICE SATELLITE CONSORTIUM, 4040 SORPENT VALLEY BLVD., SAN DIEGO, CA., 92121, TECHNICAL REPORT, NTIS: N78-10347.
- 927 GILKENSAN, R.L. (EDITOR)
"REPORTS ON BIOMEDICAL COMMUNICATIONS EXPERIMENTS VIA SATELLITE." SEPT 79, NATIONAL LIBRARY OF MEDICINE NEWS, 8600 ROCKVILLE PIKE, BETHESDA, MARYLAND 20209, JOURNAL ARTICLE, BIBLIOGRAPHY.
- 928 THOMA, G.R.; PROPHET, D.M.
"EVALUATION OF ECHO SUPPRESSION IN VIDEO TELECONFERENCING VIA THE COMMUNICATIONS TECHNOLOGY SATELLITE." FEB 79, LISTER HILL NATIONAL CENTER FOR BIOMEDICAL COMMUNICATIONS, NATIONAL LIBRARY OF MEDICINE, 8600 ROCKVILLE PIKE, BETHESDA, MARYLAND, 20209, TECHNICAL REPORT, NTIS: PB 294965, OTHER: LPM CC 79-09.
- 929 AMN, MOON-SUK
"A STUDY ON THE KOREAN EDUCATIONAL COMPUTER NETWORK." AUG 74, UNIVERSITY OF HAWAII, HONOLULU, HAWAII, TECHNICAL REPORT, ERIC: ED 108 577.

- 930 UNKNOWN
"PACIFIC EDUCATIONAL COMPUTER NETWORK STUDY." MAR 75, UNIVERSITY OF HAWAII,
HONOLULU, HAWAII, TECHNICAL REPORT, ERIC: ED 102 579.
- 931 WALP, R.M.
"DEVELOPMENT OF SATELLITE-BASED TELECOMMUNICATION IN ALASKA." SEPTEMBER 19
79. ROBERT M. WALP, OFFICE OF TELECOMMUNICATIONS, 225 CORDOVA STREET, ANCH
ORAGE, ALASKA 99501, SYMPOSIUM PRESENTATION, ORIGINATOR NO.: IAF-79-F-278
, AIAA: A79-33390.
- 932 DUNCAN, R.A. (ED.)
"BIOMEDICAL COMMUNICATIONS EXPERIMENTS USING THE COMMUNICATIONS TECHNOLOGY
SATELLITE: SYMPOSIUM PROCEEDINGS." DEC 78, THE MITRE CORPORATION, MITRE C
DIVISION, 1820 DOLLEY MADISON BLVD., MCLEAN, VIRGINIA, 22102, TECHNICAL REP
ORT, NTIS: PB 295550.
- 933 BRAMBLE, W.J.; MARION, R.; WETTER, R.; WHITTON, C.
"USER RATINGS OF INSTRUCTIONAL ACTIVITIES: DIAGNOSTIC AND PRESCRIPTIVE RE
ADING INSTRUCTION, SUMMER, 1974. TECHNICAL REPORT NO. 6." JULY 75, RESOURCE
COORDINATING CENTER, UNIVERSITY OF KENTUCKY, LEXINGTON, KENTUCKY, TECHNIC
AL REPORT, OTHER: ED 114 064.
- 934 MERTENS, D.M.; PERRITT, L.J.
"SUMMATIVE EVALUATION OF WORKSHOPS. FALL, 1977. TECHNICAL REPORT NO. 20."
JUNE 78, RESOURCE COORDINATING CENTER, UNIVERSITY OF KENTUCKY, LEXINGTON, K
ENTUCKY, TECHNICAL REPORT, OTHER: ED 162 655.
- 935 DAUGHERTY, D.; MERTENS, D.M.
"A SUMMATIVE EVALUATION OF TEACHING THE YOUNG HANDICAPPED CHILD: SPRING 19
78. TECHNICAL REPORT NO. 24." NOV 78, RESOURCE COORDINATING CENTER, UNIVERS
ITY OF KENTUCKY, LEXINGTON, KENTUCKY, TECHNICAL REPORT, ED 165 810.
- 936 PERRITT, L.J.; MERTENS, D.M.
"SUMMATIVE EVALUATION OF WORKSHOPS. SUMMER, 1977. TECHNICAL REPORT NO. 18.
"DEC 77, RESOURCE COORDINATING CENTER, UNIVERSITY OF KENTUCKY, LEXINGTON,
KENTUCKY, TECHNICAL REPORT, OTHER: ED 162 608.
- 937 PERRITT, L.J.; MERTENS, D.M.
"SUMMATIVE EVALUATION OF WORKSHOPS: SPRING, 1978. TECHNICAL REPORT NO. 23.
"NOV 78, RESOURCE COORDINATING CENTER, UNIVERSITY OF KENTUCKY, LEXINGTON,
KENTUCKY, TECHNICAL REPORT, OTHER: ED 165 811.
- 938 BRAMBLE, W.J.; AUSNESS, C.; FREEMAN, J.R.
"PERFORMANCE OF AESP TRANSMISSION/RECEPTION EQUIPMENT: SUMMER AND FALL, 19
74. TECHNICAL REPORT NO. 5." JULY 75, RESOURCE COORDINATING CENTER, UNIVERS
ITY OF KENTUCKY, LEXINGTON, KENTUCKY, TECHNICAL REPORT, OTHER: ED 114 063.
- 939 UNKNOWN
"PLANNING TO MEET ALASKA EDUCATIONAL NEEDS THROUGH TELECOMMUNICATIONS." JAN
77, GOVERNOR'S OFFICE OF TELECOMMUNICATIONS, JUNEAU, ALASKA, TECHNICAL RE
PORT, OTHER: ED 158 783.
- 940 UNKNOWN
"EDUCATIONAL TELECOMMUNICATIONS FOR ALASKA." JAN 1977, ALASKA DEPARTMENT OF
EDUCATION, OFFICE OF PLANNING AND RESEARCH, POUCH F, STATE OFFICE BUILDIN
G, JUNEAU, ALASKA, 99801, TECHNICAL REPORT, OTHER: ED 162 611.

- 941 UNKNOWN
"SATELLITE TELEVISION DEMONSTRATION PROJECT." MAR 77, GOVERNOR'S OFFICE OF
TELECOMMUNICATIONS, JUNEAU, ALASKA, TECHNICAL REPORT, OTHER: ED 168 546.
- 942 WILKE, J.L.; TAYLOR, R.C.; MCINTIRE, T.
"EDUCATIONAL TELECOMMUNICATIONS ALTERNATIVES FOR ALASKA. PRODUCT 1." JAN 7
6, GOVERNOR'S OFFICE OF TELECOMMUNICATIONS, JUNEAU, ALASKA, TECHNICAL REPO
RT, ED 162 610.
- 943 UNKNOWN
"STUDY OF EDUCATION SATELLITE COMMUNICATION DEMONSTRATION." JAN 75, SYRACUS
E UNIVERSITY RESEARCH CORPORATION, EDUCATIONAL POLICY RESEARCH CENTER, PER
RILL LANE, SKYTOP, SYRACUSE, NEW YORK, 13210, PROGRESS REPORT, ERIC: ED 10
3 014.
- 944 KAY, P.; CRINER, K.; DIX, M.; FOX, P.
"REVIEW OF REPRESENTATIVE PUBLIC SERVICE EXPERIMENTS AS THEY APPLY TO RURA
L TELECOMMUNICATIONS." NOV 76, U.S. CONGRESS OFFICE OF TECHNOLOGY, ASSESME
NT CONFERENCE ON COMMUNICATIONS AND RURAL AMERICA, WASHINGTON, D.C., PAPER,
ERIC: ED 135 523.
- 945 WOOD, F.B.; COATES, V.T.; CHARTRAND, R.L.; ERICSON, R.F.
"VIDEOCONFERENCING VIA SATELLITE: OPENING CONGRESS TO THE PEOPLE." FEB 78
, GEORGE WASHINGTON UNIVERSITY, PROGRAM OF POLICY STUDIES IN SCIENCE AND T
ECHNOLOGY, WASHINGTON, D.C., 20052, TECHNICAL REPORT, NTIS: N78-27309, ERI
C: ED 162 646.
- 946 PANKO, R.P.
"THE IMPACT OF COMMUNICATIONS TECHNOLOGIES DESIGNED TO SUBSTITUTE FOR TRAV
EL ON SCIENTIFIC AND TECHNICAL COMMUNICATIONS." JUNE 77, STANFORD RESEARCH
INSTITUTE INTERNATIONAL, TELECOMMUNICATIONS SCIENCE CENTER, 333 RAVENS WOO
D AVENUE, MENLO PARK, CA, 94025, TECHNICAL REPORT, NTIS: PB-269 669.
- 947 SPAIN, P.; GOODELL, R.; KREIMER, G.; SCHRAMM, L.; SMITH, D.C.
"A DIRECT BROADCAST SATELLITE FOR EDUCATION AND DEVELOPMENT IN AFRICA?" FEB
72, STANFORD UNIVERSITY, INSTITUTE FOR COMMUNICATION RESEARCH, STANFORD,
CALIFORNIA, 94025, TECHNICAL REPORT, ERIC: ED 060 659.
- 948 CHANDER, R.; KARNIK, K.
"PLANNING FOR SATELLITE BROADCASTING: THE INDIAN INSTRUCTIONAL TELEVISION
EXPERIMENT." 1976, UNITED NATIONS EDUCATIONAL, SCIENTIFIC, AND CULTURAL O
RGANIZATION, PARIS, FRANCE, TECHNICAL MEMORANDUM, ERIC: ED146898.
- 949 UNKNOWN
"STUDY OF EDUCATION SATELLITE COMMUNICATIONS DEMONSTRATION (IESCD): ALASKA.
"SEPT 74, PRACTICAL CONCEPTS INCORPORATED, 1030 FIFTEEN STREET, N.W., SUIT
E 940, WASHINGTON, D.C., 20005, PROGRESS REPORT, ERIC: ED 101 732.
- 950 ORVIK, J.M.; GOODING, L.A.; FORBES, M.E.
"THE SOCIAL AND BEHAVIORAL EFFECTS OF BROADCAST TELEVISION ON PREVIOUSLY U
NYOUCED AUDIENCES." AUG 78, CENTER FOR NORTHERN EDUCATIONAL RESEARCH, UNIV
ERSITY OF ALASKA, FAIRBANKS, ALASKA, TECHNICAL REPORT, ERIC: ED 169 904.

- 951 UNKNOWN
 "STUDY OF EDUCATION SATELLITE COMMUNICATIONS DEMONSTRATION: ALASKA." DEC 79
 , PRACTICAL CONCEPTS INCORPORATED, 1030 FIFTEEN STREET, N.W., SUITE 940, W
 ASHINGTON, D.C., 20005, PROGRESS REPORT, ERIC: ED 101 733.
- 952 NASA/LEWIS RESEARCH CENTER, CLEVELAND, OHIO
 "COMMUNICATIONS TECHNOLOGY SATELLITE UNITED STATES USERS MEETING #21." DEC
 14 1978, NASA, LEWIS RESEARCH CENTER, CLEVELAND, OHIO, 44135, INDEX OF US
 ERS.
- 953 BRUSSAARD, G.
 "OUTLINE OF ATS-6 PROPAGATION EXPERIMENTS OVER EUROPE." OCT 1977, SPACE CO
 MMUNICATIONS DIVISION, ESTEC, NOORDWIJK, THE NETHERLANDS, INDEX OF USERS,
 NTIS: N78-15334, ORIGINATOR NO.: ESA-SP-131.
- 954 BROWNING, D.J.; PRATT, T.
 "THE ATS-6 PROPAGATION MEASUREMENT SYSTEM AT THE UNIVERSITY OF BIRMINGHAM,
 UK." OCT 1977, UNIVERSITY OF BIRMINGHAM, DEPARTMENT OF ELECTRONIC AND ELE
 CTRICAL ENGINEERING, BIRMINGHAM, UK, TECHNICAL REPORT, NTIS: N78-15335.
- 955 PRATT, T.; BROWNING, D.J.
 "COPOLAR ATTENUATION AND RADIOMETER MEASUREMENTS AT 30 GHZ FOR A SLANT PAT
 H TO CENTRAL ENGLAND." OCT 1977, UNIVERSITY OF BIRMINGHAM, BIRMINGHAM, UK,
 TECHNICAL REPORT, NTIS: N78-15336.
- 956 MCEWAN, N.J.; WATSON, P.A.; DISSANAYAKE, A.W.
 "SATELLITE PATH ATTENUATION AT 20 GHZ COMPARED WITH 9.4 GHZ RADAR MEASUREM
 ENTS." OCT 1977, UNIVERSITY OF BRADFORD, BRADFORD, UK, TECHNICAL REPORT, N
 TIS: N78-15337.
- 957 DINTELMANN, F.; RUCKER, F.
 "ATTENUATION STATISTICS AT 30 GHZ, DERIVED FROM MEASUREMENTS WITH ATS-6 AN
 D SIMULTANEOUS RADIOMETRIC OBSERVATIONS AT 11.4 GHZ." OCT 1977, DEUTSCHE B
 UNDESPOST RESEARCH INSTITUTE, FERNMELDETECHNISCHES ZENTRALAMT, DARMSTADT,
 GERMANY, TECHNICAL REPORT, NTIS: N78-15338.
- 958 DIJK, J.; VAN DER FLUIT, P.J.; MAANDERS, E.J.; ROELANDSCHAP, P.J.; DE WINT
 ER, P.J.; ZELDERS, F.
 "ATS-6 EXPERIMENTS AT EINDHOVEN UNIVERSITY." OCT 1977, EINDHOVEN UNIVERSIT
 Y OF TECHNOLOGY, RADIO GROUP, EINDHOVEN, THE NETHERLANDS, TECHNICAL REPORT
 , NTIS: N78-15339.
- 959 HOWELL, R.G.; THIRLWELL, J.; BELL, R.R.
 "20 AND 30 GHZ ATTENUATION MEASUREMENTS USING THE ATS-6 SATELLITE." OCT 19
 77, POST OFFICE RESEARCH CENTRE, HARTLESHAM HEATH, IPSWICH, UK, TECHNICAL
 REPORT, NTIS: N78-15340.
- 960 ALLNUTT, J.E.; SHUTIE, P.F.
 "SLANT-PATH ATTENUATION AND SPACE-DIVERSITY RESULTS AT 30 GHZ USING RADIOM
 ETER AND SATELLITE-BEACON RECEIVERS." OCT 1977, SRC APPLETON LABORATORY, C
 ITTON PARK, SLOUGH, UK, TECHNICAL REPORT, NTIS: N78-15341.
- 961 HOWELL, R.G.; THIRLWELL, J.; GOLFIN, N.G.; BALLANCE, J.W.; MACHILLAN, R.H.
 "20 AND 30 GHZ CROSS-POLARIZATION MEASUREMENTS USING THE ATS-6 SATELLITE."
 OCT 1977, POST OFFICE RESEARCH CENTRE, HARTLESHAM HEATH, IPSWICH, UK, TEC
 NICAL REPORT, NTIS: N78-15343.

- 962 PRATT, T.; BROWNING, D.J.
"CROSS-POLARIZATION MEASUREMENTS AT 30 GHZ FOR A SLANT PATH TO CENTRAL UK."
OCT 1977, UNIVERSITY OF BIRMINGHAM, BIRMINGHAM, UK, TECHNICAL REPORT, NTIS: N78-15344.
- 963 DINTELMANN, F.; RUCKER, F.
"ANALYSIS OF SOME POLARIZATION EVENTS WHICH WERE MEASURED AT 30 GHZ WITH A TS-6." OCT 1977, DEUTSCHE BUNDESPOST RESEARCH INSTITUTE, FERNMELDETECHNISCHES ZENTRALAMT, DARMSTADT, GERMANY, TECHNICAL REPORT, NTIS: N78-15345.
- 964 WATSON, P.A.; MCEWAN, N.J.; DISSANAYAKE, A.W.; HAWORTH, D.P.
"ATTENUATION AND CROSS-POLARIZATION MEASUREMENTS AT 20 GHZ USING THE ATS-6 SATELLITE WITH SIMULTANEOUS RADAR OBSERVATIONS." OCT 1977, UNIVERSITY OF BRADFORD, BRADFORD, UK, TECHNICAL REPORT, NTIS: N78-15346.
- 965 SHUTIE, P.F.; MACKENZIE, E.C.; ALLNUTT, J.E.
"DEPOLARIZATION MEASUREMENTS AT 30 GHZ USING TRANSMISSIONS FROM ATS-6." OCT 1977, SRC APPLETON LABORATORY, DITTON PARK, SLOUGH, UK, TECHNICAL REPORT, NTIS: N78-15347.
- 966 BELL, R.R.; THIRLWELL, J.; CASEY, A.T.; MACMILLAN, R.H.
"THE CALIBRATION OF 20 AND 30 GHz RADIOMETERS BY USING THE ATS-6 SATELLITE BEACONS." OCT 1977, POST OFFICE RESEARCH CENTRE, MARTLESHAM HEATH, IPSWICH, UK, TECHNICAL REPORT, NTIS: N78-15348.
- 967 CABRERA, P.L.
"PARTICIPATION OF CTNE IN COMSAT EXPERIMENT." OCT 1977, CTNE, MAGRIC, SPAIN, TECHNICAL REPORT, NTIS: N78-15350.
- 968 BROWNING, D.J.; PRATT, T.
"LOW-ANGLE PROPAGATION FROM ATS-6 AT 30 GHZ." OCT 1977, UNIVERSITY OF BIRMINGHAM, BIRMINGHAM, UK, TECHNICAL REPORT, NTIS: N78-15349.
- 969 FRENCH, R.F.G.; KNOX, D.M.; THOMPSON, P.T.
"OPERATIONAL CHARACTERISTICS OF THE ATS-6 EXPERIMENT USING THE MARTLESHAM EARTH STATION." POST OFFICE RESEARCH CENTRE, MARTLESHAM HEATH, IPSWICH, UK, TECHNICAL REPORT, NTIS: N78-15354.
- 970 RUCKER, F.; DINTELMANN, F.
"ANTENNA MEASUREMENTS AT 30 GHZ WITH ATS-6 FOR EXAMINATION OF THE POLARIZATION BEHAVIOUR OF THE RECEIVER AND SATELLITE ANTENNAE." OCT 1977, DEUTSCHE BUNDESPOST RESEARCH INSTITUTE, FERNMELDETECHNISCHES ZENTRALAMT, DARMSTADT, GERMANY, TECHNICAL REPORT, NTIS: N78-15352.
- 971 TURNER, D.J.W.; FRENCH, R.F.G.; THOMPSON, P.T.
"RADIATION PATTERNS OF THE MARTLESHAM HEATH 6.1M STEERABLE AERIAL AT 20 AND 30 GHZ MEASURED USING THE ATS-6 BEACONS AS SOURCES." OCT 1977, POST OFFICE RESEARCH CENTRE, MARTLESHAM HEATH, IPSWICH, UK, TECHNICAL REPORT, NTIS: N78-15351.
- 972 LIM, T.L.
"PHASE COHERENCY MEASUREMENTS ON ATS-6 L-BAND EMISSIONS." JULY 1977, VALLEY FORGE RESEARCH CENTER, MOORE SCHOOL OF ELECTRICAL ENGINEERING, UNIVERSITY OF PENNSYLVANIA, PHILADELPHIA, PA, TECHNICAL REPORT, IEEE: 79A-18720.

- 973 MORGAN, R.P.
"APPLICATION OF COMMUNICATIONS SATELLITES TO EDUCATIONAL DEVELOPMENT." 1975, CENTER FOR DEVELOPMENT TECHNOLOGY, WASHINGTON UNIVERSITY, ST. LOUIS, MISSOURI 63130, TECHNICAL REPORT, BIBLIOGRAPHY, NTIS: N75-30916, NASA: NASA-CR-143328.
- 974 BROWN III, W.E.
"DESCRIPTION OF A REMOTE IONOSPHERIC SCINTILLATION DATA COLLECTION FACILITY." MARCH 1974, DEPARTMENT OF TRANSPORTATION, TRANSPORTATION SYSTEMS CENTER, KENDALL SQUARE, CAMBRIDGE, MA 02142, TECHNICAL REPORT, NTIS: PB-230 893, ORIGINATOR NO.: DOT-TSC-OST-73-17.
- 975 LANDIS, C.
"SATELLITE OPPORTUNITIES FOR HIGHER EDUCATION: REAL AND POSSIBILITY." JAN 1977, THE CORPORATION OF EDUCOM, JOURNAL ARTICLE.
- 976 WRIGHT, D.L.; DAY, J.W.B.
"THE COMMUNICATIONS TECHNOLOGY SATELLITES AND THE ASSOCIATED GROUND TERMINALS FOR EXPERIMENTS." LEWIS RESEARCH CENTER AND COMMUNICATIONS RESEARCH CENTRE, OTTAWA, CANADA, TECHNICAL MEMORANDUM, NTIS: N75-30220, NASA: NASA TM X-71761.
- 977 UNKNOWN (PUBLIC SERVICE SATELLITE CONSORTIUM ENGINEERING DEPARTMENT)
"EARTH STATION DESIGN AT 12/14 GHZ." JULY, 1977, PUBLIC SERVICE SATELLITE CONSORTIUM, 2480 WEST 26 AVENUE, SUITE 908, DENVER, COLORADO 80211, TECHNICAL REPORT, NTIS: N77-33234, NASA: NASA-CR-152597.
- 978 UNKNOWN (NASA)
"NASA RETIRES ATS-6." AUG 79, NASA/GSFC, GREENBELT, MARYLAND, JOURNAL ARTICLE.
- 979 UNKNOWN (NASA)
"A COMPENDIUM OF MILLIMETER WAVE PROPAGATION STUDIES PERFORMED BY NASA." DEC 1977, NASA, TECHNICAL REPORT, NTIS: N78-29309, NASA: NASA-CR-156781.
- 980 UNKNOWN (WESTINGHOUSE ELECTRIC CORPORATION)
"COMMUNICATIONS LINK CHARACTERIZATION EXPERIMENT (CLCE)." JAN 1977, WESTINGHOUSE ELECTRIC CORPORATION, DEFENSE AND ELECTRONIC SYSTEMS CENTER, P.O. BOX 1693, BALTIMORE, MARYLAND, 21203, TECHNICAL REPORT, NTIS: N78-29308, NASA: NASA-CR-156784.
- 981 MICHELINI, R.D.; GROSSI, M.D.
"VLBI OBSERVATIONS OF RADIO EMISSIONS FROM GEOSTATIONARY SATELLITES." JUNE 1971, SMITHSONIAN INSTITUTION, ASTROPHYSICAL OBSERVATORY, CAMBRIDGE, MASSACHUSETTS, 02138, PAPER, OTHER: AIAA 71A 33845.
- 982 BROWN III, W.E.; MAROULES, G.G.; THOMPSON III, W.I.
"A TECHNIQUE FOR MEASURING FADING MICROWAVE SIGNALS FROM THE ATS-5 SPACECRAFT." MARCH 1978, DEPARTMENT OF TRANSPORTATION, TRANSPORTATION SYSTEMS CENTER, CAMBRIDGE, MASS., JOURNAL ARTICLE, OTHER: AIAA 78A 31037.
- 983 PANT, N.; GARG, S.C.; GUPTA, S.C.; SENGUPTA, N.
"UTILIZATION OF SINGLE SPACECRAFT TRANSPONDER FOR TWO VIDEO CHANNELS." FEBRUARY 1978, INDIAN SPACE RESEARCH ORGANIZATION, SPACE APPLICATIONS CENTER, AHMEDABAD, INDIA, JOURNAL ARTICLE, OTHER: AIAA 78A 39573.

- 984 WELLS, P.I.; TRYON, P.V.
"THE ATTENUATION OF UHF RADIO SIGNALS BY HOUSES." AUGUST 1976, U.S. DEPARTMENT OF COMMERCE, OFFICE OF TELECOMMUNICATIONS, INSTITUTE FOR TELECOMMUNICATION SCIENCES, 325 BROADWAY, BOULDER, COLORADO, 80302, TECHNICAL REPORT, NTIS: PB-258 447.
- 985 MARUSCHAK, J.; NACE, D.
"A PORTABLE L-BAND VOICE TRANSCEIVER FOR SATELLITE COMMUNICATIONS." MARCH 1978, GODDARD SPACE FLIGHT CENTER, GREENBELT, MARYLAND, 20771, TECHNICAL MEMORANDUM, NTIS: N78-24403, ORIGINATOR: TM-781C8.
- 986 SCHMID, P.E.; ARGENTIERO, P.O.; VONBUN, F.O.
"SATELLITE-TO-SATELLITE TRACKING SYSTEM AND ORBITAL ERROR ESTIMATES." JANUARY 1976, GODDARD SPACE FLIGHT CENTER, GREENBELT, MARYLAND, 20771, TECHNICAL MEMORANDUM, NTIS: N76-22249, ORIGINATOR: TM-71093.
- 987 MCCENEY, P.J.
"APPLICATIONS TECHNOLOGY SATELLITE PROGRAM." SEPTEMBER 1977, NATIONAL AERONAUTICS AND SPACE ADMINISTRATION, WASHINGTON, DC, 20546, JOURNAL ARTICLE.
- 988 CHINNICK, J.H.; BURTT, D.
"CANADIAN AERONAUTICAL SATELLITE TESTS USING THE ATS-6 SATELLITE." JANUARY 1976, COMMUNICATIONS RESEARCH CENTER, DEPARTMENT OF COMMUNICATIONS, OTTAWA, CANADA, TECHNICAL MEMORANDUM, NTIS: N79-12270.
- 989 BARNLA, J.O.
"MARINE NAVIGATION AND COMMUNICATIONS AT L-BAND VIA SYNCHRONOUS SATELLITE." SUMMER 1971, APPLIED INFORMATION INDUSTRIES, MOORESTOWN, NEW JERSEY, 08057, JOURNAL ARTICLE.
- 990 BOSTIAN, C.W.; KAUFFMAN, S.R.; MANUS, E.A.; MARSHALL, R.E.; OVERSTREET, W.P.; PERSINGER, R.R.; STUTZMAN, W.L.; WILEY, P.H.
"A DEPOLARIZATION AND ATTENUATION EXPERIMENT USING THE CTS SATELLITE." FEBRUARY 1977, ELECTRICAL ENGINEERING DEPARTMENT, VIRGINIA POLYTECHNIC INSTITUTE AND STATE UNIVERSITY, BLACKBURG, VIRGINIA, 24061, TECHNICAL REPORT, NTIS: N77-21277.
- 991 BOSTIAN, C.W.; KAUFFMAN, S.R.; MANUS, E.A.; MARSHALL, R.E.; OVERSTREET, W.P.; PERSINGER, R.R.; STUTZMAN, W.L.; WILEY, P.H.
"A DEPOLARIZATION AND ATTENUATION EXPERIMENT USING THE COMSTAR AND CTS SATELLITES." ELECTRICAL ENGINEERING DEPARTMENT, VIRGINIA POLYTECHNIC INSTITUTE AND STATE UNIVERSITY, BLACKBURG, VIRGINIA, 24061, TECHNICAL REPORT, NTIS: N78-21336.
- 992 UNKNOWN
"THE INSTITUTE FOR COMMUNICATION RESEARCH - ANNUAL REPORT 1975 - 1976." OCT 1976, STANFORD UNIVERSITY, STANFORD, CALIFORNIA, 94305, TECHNICAL REPORT, OTHER: ERIC ED 134 168.
- 993 SESSIONS, W.B.
"AMPLITUDE FADING OF SIMULTANEOUS TRANSIONOSPHERIC L-BAND AND VHF SIGNALS RECEIVED AT THE GEOMAGNETIC EQUATOR." JUNE 1972, WESTINGHOUSE ELECTRIC CORPORATION, TECHNICAL MEMORANDUM, NTIS: N73-1C216, NASA: NAST-TM-X-66060, OTHER: X-810-72-282.

- 994 LEVIS, C.A.; UNGVICHIAN, V.
"PRELIMINARY ANALYSIS OF 15 GHZ SCINTILLATIONS ON AN ATS-5 SATELLITE-TO-GROUND PATH." FEB 1976, THE OHIO STATE UNIVERSITY ELECTRO SCIENCE LABORATORY, DEPARTMENT OF ELECTRICAL ENGINEERING, COLUMBUS, OHIO, 43212, TECHNICAL REPORT, NTIS: N76-25315, NASA: NASA-CR-144756, ORIGINATOR: REPORT 3863-7.
- 995 KUEGLER, G.K.; MOTZ, R.P.
"HIGH POWERED BROADCAST TECHNOLOGY - CTS." 1977, WESTINGHOUSE ELECTRIC CORPORATION, BALTIMORE, MARYLAND, PAPER, OTHER: 312A-3126-EASCON.
- 996 MARTIN, D.W.; SIKDAR, D.N.
"CLOUD BUBBLES AND SQUALLS: THE ANATOMY OF AN ATLANTIC TROPICAL DISTURBANCE." MAR 1975, SPACE SCIENCE AND ENGINEERING CENTER, UNIVERSITY OF WISCONSIN, 1225 WEST DAYTON STREET, MADISON, WISCONSIN, 53706, SCIENTIFIC REPORT, OTHER: NOAA GRANT 04-3-158-61.
- 997 UNKNOWN (TAWOW)
"COMMUNICATIONS TECHNOLOGY SATELLITE OR COLUMBUS HITS THE SHORELINE RAG." FEB 1974, TAWOW, JOURNAL ARTICLE, ERIC: EJ1063C3 RC501630.
- 998 ARTHUR, C.W.; BJORDAL, J.; ROSENBERG, T.J.
"PC3 MAGNETIC PULSATIONS AND PRECIPITATION OF ENERGETIC ELECTRONS." AUG 1979, SPACE SCIENCES LABORATORY, MARSHALL SPACE FLIGHT CENTER, HUNTSVILLE, ALABAMA 35812, TECHNICAL REPORT, AIAA: 79A48326.
- 999 LIU, A.S.
"ON THE DETERMINATION AND INVESTIGATION OF THE TERRESTRIAL IONOSPHERIC REFRACTIVE INDICES USING GEO-7/ATS-6 SATELLITE-TO-SATELLITE TRACKING DATA." NOV 1978, NASA, Wallops Flight Center, Wallops Island, Virginia, 23337, TECHNICAL REPORT, NTIS: N79-14657, NASA: NASA-CR-156848.
- 1000 SURECK, D.
"CLASSROOM IN THE SKY." OCT 1974, VISUAL EDUCATION, JOURNAL ARTICLE, WSU: EJ109686 IR501359
- 1001 FOOTE, D.
"TELEMEDICINE: HEALTH CARE FOR ISOLATED AREA." JAN 1977, AGENCY FOR INTERNATIONAL DEVELOPMENT (DEPT. OF STATE), WASHINGTON, D.C., BUREAU FOR TECHNICAL ASSISTANCE, JOURNAL ARTICLE, ERIC: ED152250.
- 1002 HENDRICKSON, W.B., JR.
"TEACHER IN THE SKY." APR 1975, WALTER B. HENDRICKSON, JR., JOURNAL ARTICLE, U.D. ROESCH LIB.: EJ115816.
- 1003 UNKNOWN (NASA AND HEW)
"HEALTH-EDUCATION TELECOMMUNICATIONS EXPERIMENT (HET) EXPERIMENT SUMMARY DESCRIPTION." FEB 1974, NASA AND HEW, TECHNICAL MEMORANDUM, INDEX OF USERS, NTIS: N77-81783, NASA: NASA-TM-74788.
- 1004 UNKNOWN (STATE OF CALIFORNIA)
"PORTABLE SATELLITE COMMUNICATIONS STATIONS FOR USE BY PUBLIC EMERGENCY SERVICES." APRIL 1979, STATE OF CALIFORNIA, DEPARTMENT OF GENERAL SERVICES, COMMUNICATIONS DIVISION, 2025 19TH STREET, SACRAMENTO, CALIFORNIA, 95814, TECHNICAL MEMORANDUM.

- 1005 UNKNOWN (STATE OF CALIFORNIA)
 "SATELLITE COMMUNICATION EXPERIMENTS IN PUBLIC EMERGENCY SERVICES." JULY 1 978, STATE OF CALIFORNIA, DEPARTMENT OF GENERAL SERVICES, COMMUNICATIONS DIVISION, SACRAMENTO, CALIFORNIA, 95814, TECHNICAL MEMORANDUM.
- 1006 GATFIELD, A.G.; SUYDERHOUD, H.G.; MOLEJSZA, C.J.
 "SYSTEM DESIGN FOR THE DIGITALLY IMPLEMENTED COMMUNICATIONS EXPERIMENT (DICE)." JUNE 1977, COMSAT LABORATORIES, TECHNICAL MEMORANDUM, COMSAT LABORATORY NO.: 77CLR15.
- 1007 TAYLOR, R.E.
 "VANGUARD/PLACE EXPERIMENT SYSTEM DESIGN AND TEST PLAN." JAN/FEB 1974, RALPH E. TAYLOR, NASA, COMMUNICATION AND NAVIGATION DIVISION, GODDARD SPACE FLIGHT CENTER, CODE 945, GREENBELT, MD, 20771, JOURNAL ARTICLE.
- 1008 UNKNOWN (PUBLIC SERVICE SATELLITE CONSORTIUM)
 "A FREQUENCY STUDY FOR PUBLIC SERVICES USERS OF SATELLITE TELECOMMUNICATIONS." MAR 1977, FEDERATION OF ROCKY MOUNTAIN STATES, 2480 WEST 26TH AVENUE, SUITE 300B, DENVER, COLORADO, 80211, TECHNICAL REPORT, ERIC: ED 148310.
- 1009 LOVELESS, F.M., JR.; DUNCAN, B.C.
 "SATELLITE-TO-SATELLITE TRACKING FOR ORBIT IMPROVEMENT AND DETERMINATION OF A 1 DEGREE BY 1 DEGREE GRAVITY FIELD." JUNE 1976, OLD DOMINION SYSTEMS, INC., 4 PROFESSIONAL DRIVE, SUITE 119, GAITHERSBURG, MARYLAND, 20760, TECHNICAL REPORT, NTIS: ADA 030026, OTHER: ETL-0064.
- 1010 RAAUM, A.M.
 "A HISTORY OF ALASKA'S INVOLVEMENT IN EDUCATION VIA SATELLITE." APRIL 1978, RAAUM, A.M., WALDEN UNIVERSITY, THESIS, ERIC: 164 002.

SECTION 3.2
REPORTS ORDERED BY AUTHOR

AARONS, J.
 0410 "THE RELATIONSHIP OF HIGH LATITUDE SCINTILLATIONS TO VHF SYNCHRONOUS SATELLITE COMMUNICATIONS." USAF - BEDFORD, MASS. 1
 970.

AARONS, J.
 0415 SEE AUTHOR : ALLEN, R.S.

AARONS, J.
 0400 "RTACOM STUDIES OF ATS-3 IN NORTH AND SOUTH AMERICA." USAF CAMBRIDGE RESEARCH LABS, BEDFORD, MASS.

AARONS, J.
 0501 "SYNCHRONOUS SATELLITE SIGNALS AT 137 MHZ AS OBSERVED FROM THULE, GREENLAND." USAF CAMBRIDGE RESEARCH LABS., JULY 1969.

ABRAMSON, M.
 0050 "THE ALOHA SYSTEM." JAN 1972, UNIVERSITY OF HAWAII TECH. REPT. 872-1.

ABRAMSON, M.
 0051 "PACKET SWITCHING WITH SATELLITES." MAR 1973, UNIVERSITY OF HAWAII TECH. REPT. 873-2.

ABRAMSON, NORMAN
 0227 "FINAL TECHNICAL REPORT." JAN 75; UNIV. OF HAWAII, THE ALOHA SYSTEM, HONOLULU, HAWAII, MAS2-6700.

APSOLONNI, F.
 0446 SEE AUTHOR : BROWN, D.L.

ACADEMY FOR EDUCATIONAL DEVELOPMENT, INC.
 0078 SEE AUTHOR : PAPAY, J.P.

ACADEMY FOR EDUCATIONAL DEVELOPMENT, INC.
 0079 SEE AUTHOR : POLCYN, M.A.

ACADEMY FOR EDUCATIONAL DEVELOPMENT, INC.
 0255 SEE AUTHOR : POLCYN, M.A.

ACADEMY FOR EDUCATIONAL DEVELOPMENT, INC.
 0256 SEE AUTHOR : POLCYN, M.A.

ACTION STUDY OF EDUCATIONAL USES OF SATELLITE COMMUNICATIONS IN REMOTE ALA
 0148 SEE AUTHOR : PARKER, W.R.

ACTION STUDY OF EDUCATIONAL USES OF SATELLITE COMMUNICATIONS IN REMOTE ALA
 0149 SEE AUTHOR : PARKER, W.R.

ACTION STUDY SATELLITE PROJECT
 0147 SEE AUTHOR : PITTMAN, T.S.

AERONAUTICAL RADIO, INC.
 0013 SEE AUTHOR : PETRY, C.A.

AERONAUTICAL RADIO INC.
 0174 SEE AUTHOR : STEELE, M.D.

AERONAUTICAL RADIO INC.
 0176 SEE AUTHOR : UNKNOWN

AERONAUTICAL RADIO INC.
 0240 SEE AUTHOR : UNKNOWN

AERONAUTICAL RADIO, INC.
 0241 SEE AUTHOR : PETRY, C.A.

AERONAUTICAL RADIO, INC.
 0295 SEE AUTHOR : UNKNOWN

AERONAUTICAL RADIO, INC.
 0473 "SIGNIFICANT OBSERVATIONS AND RESULTS DURING SATCOM TESTS WITH TWA-OCT. 1968., AIRINC/AIRLINES SATCOM PROGRAM.

AIM, MOON-SUM
 0429 "A STUDY ON THE KURLAN EDUCATIONAL COMPUTER NETWORK." AUG 74, UNIVERSITY OF HAWAII, HONOLULU, HAWAII, TECHNICAL REPORT,
 (RIC: ED 108 577.

ALASKA EDUCATIONAL BROADCASTING COMMISSION
 0121 "ALASKA/ATS-F: HEALTH/EDUCATION TELECOMMUNICATIONS EXPERIMENT ... PROGRAM PLANS." DEC 72, ALASKA EDUCATIONAL BROADCAST-
 ING COMMISSION, ANCHORAGE, ALASKA, PROPOSAL.

ALASKA EDUCATIONAL BROADCASTING.
 0129 SEE AUTHOR : LEV, W.

ALEXANDER, LTJG J. O.
 0467 SEE AUTHOR : HEMPTON, CAPT. G.F.

ALEXANDER, P.
 0777 SEE AUTHOR : THOMPSON, A.D.

ALEXANDER, P.
 0778 SEE AUTHOR : THOMPSON, A.D.

ALLAN, U.S.
 0040 "MEDICAL TELECOMMUNICATIONS EXPERIMENTS FOR ALASKA VIA SATELLITE: A SUMMARY OF HARDWARE EXPERIMENTS AND A CATALOG OF TE-
 LEMIN EQUIPMENT." MARCH 1973, STANFORD UNIVERSITY, STANFORD, CALIFORNIA, TECH. REPT., CONTRACT NO. NIM-8710 (LISTER HILL

ALLAN, H.
 0522 "COMING: THE ERA OF TELEMEDICINE." DEC 1976, JOURNAL ARTICLE.

ALLEN, M.S.
 0433 "SCINTILLATION BOUNDARY DURING QUIET AND DISTURBED MAGNETIC CONDITIONS." USAF, CAMBRIDGE RESEARCH LABORATORIES, BEDFORD
 , MASS. JAN. 1971.

ALLEN, M.A.
 0636 "POSITION LOCATION AND AIRCRAFT COMMUNICATIONS EQUIPMENT (PLACE)." MAY 1972, GODDARD SPACE FLIGHT CENTER, GREENBELT, MARYLAN
 D 20711, PROPOSAL.

ALLIED RESEARCH ASSOCIATES
 0142 SEE AUTHOR : HALL, A.R.

ALLNUTT, J.E.
 0960 "SLANT-PATH ATTENUATION AND SPACE-DIVERSITY RESULTS AT 30 GHZ USING RADIOMETER AND SATELLITE-BEACON RECEIVERS." OCT 197
 7, SAC APPLITON LABORATORY, DITTON PARK, SLOUGH, UK, TECHNICAL REPORT, NTIS: N78-15341.

ALLNUTT, J.F.
 0965 SEE AUTHOR : SHUTLE, P.F.

ALMOND, J.
U144 "CANADIAN DOMESTIC COMMUNICATION SATELLITE SYSTEM." OCT 68-AUG 69, TELESAT CANADA, OTTAWA, ONTARIO, PROPOSAL.

ALMOND, J.
U172 "A PERSPECTIVE ON THE CANADIAN SATELLITE PROGRAM." 1976, JOURNAL ARTICLE.

ALMUTT, M.M.
U173 "VHF AIRCRAFT ANTENNAS FOR COMMUNICATIONS VIA SYNCHRONOUS SATELLITE." JUL 66; BOEING, SEATTLE, WASH.

ALPHA SYSTEM
U050 SEE AUTHOR : ABRAMSON, M.

ALPHA SYSTEM
U051 SEE AUTHOR : ABRAMSON, M.

ALPHA SYSTEM
U223 SEE AUTHOR : STOUTMYER, D.R.

ALPHA SYSTEM
U227 SEE AUTHOR : ABRAMSON, NORMAN

ALPHA SYSTEM
U228 SEE AUTHOR : BINDER, R.

AMERICAN BROADCASTING COMPANIES, INC.
U127 SEE AUTHOR : ERLICK, E.M.

AMERICAN BROADCASTING COMPANIES, INC.
U154 SEE AUTHOR : ERLICK, E.M.

ANCHORAGE DAILY TIMES
U161 "SATELLITE LINKS SET." MAR 71, ANCHORAGE DAILY TIMES, NEWSPAPER ARTICLE.

ANCHORAGE DAILY NEWS
U182 "EDUCATIONAL TV READY FOR THE RUSH." JUL 71, ANCHORAGE DAILY NEWS, NEWSPAPER ARTICLE.

ANCHORAGE DAILY NEWS
U183 "SATELLITES AID HERE." JUL 71, ANCHORAGE DAILY NEWS, NEWSPAPER ARTICLE.

ANCHORAGE DAILY TIMES
U184 "EDUCATIONAL TV POLICY IS TOPIC." JUN 71, ANCHORAGE DAILY TIMES, NEWSPAPER ARTICLE.

ANCHORAGE DAILY TIMES
U185 "YUKON TV PLANS WILL 'GO SLOW'." JUN 71, ANCHORAGE DAILY TIMES, NEWSPAPER ARTICLE.

ANCHORAGE DAILY NEWS
U186 SEE AUTHOR : BOWDITCH, M.

ANCHORAGE DAILY NEWS
U187 "FUNDS FOR EDUCATIONAL SATELLITE." JUN 71, ANCHORAGE DAILY NEWS, NEWSPAPER ARTICLE.

ANCHORAGE DAILY TIMES
010- "FUNDS ALLOCATED FOR SATELLITE HERE." JUN 71, ANCHORAGE DAILY TIMES, NEWSPAPER ARTICLE.

ANCHORAGE DAILY TIMES
019- "VILLAGERS HEALTH SATELLITE FUNDED." JUN 71, ANCHORAGE DAILY TIMES, NEWSPAPER ARTICLE.

ANDERSON, B.D.
U222 SEE AUTHOR : MORGAN, R.P.

ANDERSON, C.
0271 "SATELLITE TRANSMISSION OF LOW COST EEG SIGNALS." JUN 1972, UNIVERSITY OF WASHINGTON.

ANDERSON, R.E.
0015 SEE AUTHOR : LAROSA, R.M.

ANDERSON, R.E.
0023 "VHF RANGING AND POSITION FIXING EXPERIMENT USING ATS SATELLITES: FINAL REPORT ON PHASES 1 AND 2." NOV 1968- MAY 1971,
GENERAL ELECTRIC COMPANY, TECH. REPT. 5-71-1109 CONTRACT NO. MASS-11634 (GODDARD SPACE FLIGHT CENTER).

ANDERSON, R.E.
0037 "FINAL REPORT ON PHASE 3 ATS RANGING AND POSITION FIXING EXPERIMENT." MAR 1971- DEC 1972, GENERAL ELECTRIC CO., TECH. R
EPT. SRQ-73-062, GSFC CONTRACT MASS-11634.

ANDERSON, R.E.
0101 "SECOND QUARTERLY REPORT FOR ATS RANGING AND POSITIONING EXPERIMENT (25 FEB 69-25 MAY 69)." MAY 1969, GENERAL ELECTRIC
CO., TECH. REPT., MASS-11634 (GODDARD SPACE FLIGHT CENTER).

ANDERSON, R.E.
0111 "FIRST QUARTERLY REPORT FOR ATS RANGING AND POSITION FIXING EXPERIMENT." AUG 1969, RESEARCH AND DEVELOPMENT CENTER, GE
NERAL ELECTRIC CO., SCHEMECTADY, NEW YORK, TECH. REPT., CONTRACT NO. MASS-11634, (NASA-GODDARD SPACE FLIGHT CENTER).

ANDERSON, R.E.
0116 "PERIODIC PROGRESS REPORT FOR ATS RANGING AND POSITION FIXING EXPERIMENTS." JUL 1970, RESEARCH AND DEVELOPMENT CENTER,
GENERAL ELECTRIC CO., SCHEMECTADY, NEW YORK, TECH. REPT., CONTRACT NO. MASS-11634, (NASA-GODDARD SPACE FLIGHT CENTER).

ANDERSON, R.E.
0117 "EXPERIMENTAL EVALUATION OF VHF FOR POSITION FIXING BY SATELLITE." APR 1970, GE RESEARCH AND DEVELOPMENT CENTER, SCHEM
ECTADY, NEW YORK, TECH. REPT.

ANDERSON, R.E.
0198 "INLAND WATERWAYS SATELLITE COMMUNICATION EXPERIMENT TEST PLAN." OCT 72; US DEPT OF COMMERCE, MARITIME ADMINISTRATION,
WASHINGTON, D.C.

ANDERSON, R.E.
0234 "COMMUNICATIONS AND POSITION FIXING EXPERIMENTS USING THE ATS SATELLITES." 1973; GE, CORP. RESEARCH AND DEVELOPMENT, SC
HEMECTADY, N.Y.

ANDERSON, M.E. - "EXPERIMENTAL INVESTIGATION OF AERONAUTICAL AND MARITIME COMMUNICATIONS AND SURVEILLANCE USING SATELLITES." OCT 73; GE 0216
 GENERAL ELECTRIC CORP. RESEARCH AND DEVELOPMENT, SCHENECTADY, N.Y.

ANDERSON, M.E. - "EXECUTIVE SUMMARY OF FINAL REPORT ON PHASES I AND II VHF RANGING AND POSITION FIXING EXPERIMENT USING ATS SATELLITES." 25 NOV 68. 1 MAY 71, GENERAL ELECTRIC COMPANY, TECH. MEMO.

ANDERSON, M.E. - "EXPERIMENTAL EVALUATION OF SATELLITE COMMUNICATIONS AND POSITION FIXING FOR MARITIME USERS." JUN 1974; GENERAL ELECTRIC CO., SCHENECTADY, NEW YORK, LEXON CORP.

ANDERSON, M.E. - "RESULTS OF AN EXPERIMENT TO LOCATE AND HEAR DATA FROM UNMANNED TRANSPONDERS USING SATELLITES." GENERAL ELECTRIC CO., SCHENECTADY, N.Y., APRIL 1971.

ANDERSON, M.E. - SEE AUTHOR : FINK, D.J. UN40

ANDERSON, M.E. - "VHF PROPAGATION EFFECTS ON RANGE MEASUREMENTS FROM SATELLITES." GENERAL ELECTRIC CO., SCHENECTADY, N.Y. SEPT. 1969. UN77

ANDERSON, M.E. - "RESULTS OF MARINE POSITION FIXING EXPERIMENTS USING ATS SATELLITES." GENERAL ELECTRIC CO., APRIL 1970. UN83

ANDERSON, M.E. - "RANGING AND POSITION FIXING EXPERIMENTS USING SATELLITES: 24 HOUR RANGING TEST, MARCH 1970." GENERAL ELECTRIC CO., SCHENECTADY, N.Y., JUNE 1970. UN85

ANDERSON, M.E. - "REMOTELY CONTROLLED AUTOMATIC DATA COLLECTION SYSTEM." AUG 1974, TECH. MEMORANDUM. US29

ANDERSON, M.E. - "SEARCH AND RESCUE TECHNOLOGY EXPERIMENTS WITH A GEOSTATIONARY SATELLITE." SEP 1976, PAPER. OS36

ANDERSON, M.E. - "POSITION FIXING EXPERIMENTS USING COMMUNICATION-COMPATIBLE RANGING SIGNALS." 1973. US69

ANDERSON, M.E. - "EVALUATION OF MARITIME SATELLITE COMMUNICATIONS FOR INLAND WATERWAYS." JAN. 1973, GENERAL ELECTRIC, CORPORATE RESEARCH AND DEVELOPMENT, SCHENECTADY, NEW YORK, TECHNICAL REPORT, COM-73-10764.

ANDERSON, M.E. - SEE AUTHOR : BRICKER, A.F. UC33

ANDERSON, M.E. - "COMMUNICATIONS AND POSITION FIXING EXPERIMENTS USING THE ATS SATELLITES." JAN 1974, GENERAL ELECTRIC CO., CORPORATE RESEARCH AND DEVELOPMENT, SCHENECTADY, N.Y. 12345, JOURNAL ARTICLE.

ANDERSON, R.E.
0633 "RESULTS OF AN EXPERIMENT TO LOCATE AND READ DATA FROM UNMANNED TRANSPONDERS USING SATELLITES." 1971, GENERAL ELECTRIC CO
..CORPORATE RESEARCH AND DEVELOPMENT, SCHEMECTADY, N.Y. 12345, PAPER.

ANDERSON, R.E.
0640 "A1S RANGING AND POSITION FIXING EXPERIMENT, PHASE 3." GENERAL ELECTRIC CO. SCHEMECTADY, NY 12345, TECHNICAL REPORT, M73-25
896.

ANDERSON, R.E.
0767 SEE AUTHOR : BRISHEW, A.F.

ANDERSON, R.E.
0868 SEE AUTHOR : CHENEY, L.A.

ANDRZEJEWSKI, S.-J.
0583 "ATMOSPHERIC ATTENUATION PREDICTION IN THE MILLIMETER WAVE FREQUENCY BAND." 17-19 JUNE 1974, WESTINGHOUSE ELECTRIC CORP
ATION, BALTIMORE, MARYLAND, PAPER, 74A 39602.

ANGRUS, A.M.W.
0436 "STABILIZATION REQUIREMENTS FOR COMMUNICATION AND NAVIGATION SATELLITES." NASA, WASH. D.C. 1966.

APPLIED INFORMATION INDUSTRIES
0002 SEE AUTHOR : HANAS, O.-J.

APPLIED INFORMATION INDUSTRIES
0022 SEE AUTHOR : REEDMAN, J.A.

APPLIED INFORMATION INDUSTRIES
0057 "SYSTEM DESIGN PLAN MARITIME SATELLITE NAVIGATION/COMMUNICATION PROGRAM: PHASE II--EXPERIMENT SYSTEM DEVELOPMENT AND OPE
RATION." DEC 1971, APPLIED INFORMATION INDUSTRIES MOORESTOWN, N.J. TECH. REPT. CONTRACT NO. 1-35544 U.S. DEPARTMENT OF C

APPLIED INFORMATION INDUSTRIES
0250 SEE AUTHOR : HANAS, O.-J.

APPLIED INFORMATION INDUSTRIES (AII)
0263 "EXECUTIVE SUMMARY OF 'STUDY OF PRECISE POSITIONING AT L-BAND USING COMMUNICATIONS SATELLITES'." OCT 73, APPLIED INFO
RATION INDUSTRIES, MORRISTOWN, NEW JERSEY, TECH. MEMO., IMASA VALLOPS STATION).

APPLIED INFORMATION INDUSTRIES
0323 "STUDY TO IMPROVE MARINE TRANSPORTATION THROUGH AEROSPACE ELECTRONICS-VOLUME II", MARINE DATA COMMUNICATIONS DEMONSTRAT
ION ILSI PROGRAM. REPORT PREPARED FOR U.S. MARITIME ADMINISTRATION BY APPLIED INFORMATION INDUSTRIES, JUNE 15, 1973.

APPLIED INFORMATION INDUSTRIES (AII SYSTEMS)
0465 "MARITIME SATELLITE NAVIGATION/COMMUNICATION PROGRAM VOLUME 1. EXECUTIVE SUMMARY." NOV. 1973, AII SYSTEMS MOORESTOWN, NE
W JERSEY, TECHNICAL REPORT, COM-74-10609.

APPLIED INFORMATION INDUSTRIES (AII SYSTEMS)
0666 "MARITIME SATELLITE NAVIGATION/COMMUNICATION PROGRAM. VOLUME 3. EXPERIMENT RESULTS." NOV. 1973, AII SYSTEMS MOORESTOWN,
NEW JERSEY, TECHNICAL REPORT, COM-74-10691.

ARQUHILL, F.O.
0411 SEE AUTHOR : VONHUM, F.O.

ARGENTIERO, P.D.
U986 SEE AUTHOR : SCHMID, P.E.

APINC/AIMLINES
U294 SEE AUTHOR : UNKNOWN

ARM, CAPTAIN ROBERT M., USAF
U956 "ANVIL AREA AND BRIGHTNESS CHARACTERISTICS AS SEEN FROM GEOSYNCHRONOUS SATELLITES." 1975. AIR FORCE INSTITUTE OF TECHNOLOGY STUDENT, COLORADO STATE UNIVERSITY, FORT COLLINS, COLORADO, TECHNICAL REPORT, NTIS: AD-A 018955.

ARNOLD, B.
U129 SEE AUTHOR : LEW, W.

ARNOLD, R.D.
U141 SEE AUTHOR : HIEBERT, A.G.

ARNOLDY, R.L.
U885 "ATS-6 LOW ENERGY ELECTRON-PROTON EXPERIMENT." NOVEMBER 1975, DEPT OF PHYSICS, UNIV OF NEW HAMPSHIRE, DURHAM, NH, JOURNAL ARTICLE.

ARTHUR, C.W.
U998 "PCJ MAGNETIC PULSATIONS AND PRECIPITATION OF ENERGETIC ELECTRONS." AUG 1979, SPACE SCIENCES LABORATORY, MARSHALL SPACE FLIGHT CENTER, HUNTSVILLE, ALABAMA 35812, TECHNICAL REPORT, AIAA 79A40326.

ASHMAN, J.P.
U547 SEE AUTHOR : SNYDER, J.F.

ATOMIC ENERGY COMMISSION
U026 SEE AUTHOR : NAISEN, R.L.

ATOMIC ENERGY COMMISSION
U030 SEE AUTHOR : SNELL, N.M.

AUBURN, F. M.
U282 "REPORT ON A4 EXPERIMENT IN THE REACHING OF LAM BY SATELLITE." APR 74; UNIVERSITY OF AUCKLAND, AUCKLAND, NEW ZEALAND, JOURNAL OF CLIMATE, VOL 14, NR 3.

AUSNESS, C.
U676 SEE AUTHOR : BRAMBLE, W.J.

AUSNESS, C.
U938 SEE AUTHOR : BRAMBLE, W.J.

AUSNESS, C.
U723 SEE AUTHOR : BRAMBLE, W.J.

AUSNESS, C.
U755 SEE AUTHOR : BRAMBLE, W.J.

AUSNESS, C.
U756 SEE AUTHOR : BRAMBLE, W.J.

AUSNESS, C.
U757 SEE AUTHOR : BRAMBLE, W.J.

AUSNESS, C.
U758 SEE AUTHOR : BRAMBLE, W.J.

AUSNESS, C.
0750 SEE AUTHOR : BRAMBLE, M. J.

BAIRD, G.
0508 "TELEVISION FROM INDIA." MAR 1976, JOURNAL ARTICLE, EI 760642261.

BAKER, D.
0924 "THE SOCIAL SATELLITE." 28 OCT 70, JOURNAL ARTICLE

BAKER, J. L.
0684 "SAILBOAT SEARCH AND RESCUE EXPERIMENT." JULY 1977, GODDARD SPACE FLIGHT CENTER, GREENBELT, MD., JOURNAL ARTICLE.

BAKER, M. B.
0917 "THE MCDONNELL DOUGLAS GEOPHYSICAL OBSERVATORY PROGRAM PROGRESS REPORT 13 (CONJUGATE POINT RIOMETER PROGRAM). " SEP 75, MCDONNELL DOUGLAS AERONAUTICS COMPANY, 5301 BELSA AVENUE, HUNTINGTON BEACH, CALIFORNIA, 92647, TECHNICAL REPORT, NTIS: AD-

BAKER, T.
0462 SEE AUTHOR : DEZOUTE, O. J.

BALL, J.
0601 SEE AUTHOR : JAMISON, D.

BALLANCE, J. W.
0961 SEE AUTHOR : HOWELL, R. G.

BANDER, M. R.
0424 SEE AUTHOR : RASCHKE, E.

BARBIERI, D.
0489 SEE AUTHOR : MAZUR, M. E., JR.

BARBIERI, D.
0505 "PSEUDO NOISE RANGING WITH ATS SATELLITES." WESTINGHOUSE ELECTRIC CORP., BALTIMORE, MD., SEPT. 1970.

BARDEI, G.
0417 SEE AUTHOR : FELJSKE, D.

BARBER, G.
0710 "A SIMULATION OF STAFF TRAINING BY SATELLITE." FEBRUARY 1977, PUBLIC SERVICE COMMISSION, BUREAU OF STAFF DEVELOPMENT, OTTAWA, ONTARIO, CANADA, JOURNAL ARTICLE.

BARNES, G. W.
0307 "TESTS OF CHIRP MODULATED DATA TRANSMISSIONS FROM GROUND (MOBILE) TO AN AIRCRAFT VIA SATELLITE ATS-3." MAR 1969; MINISTRY OF TECHNOLOGY, ROYAL AIRCRAFT ESTABLISHMENT, FARNBOROUGH, HANTS, ENGLAND.

BARNES, J. H.
0024 "PROPOSAL FOR COOPERATIVE ARRANGEMENT BETWEEN NASHIMA RADIO RESEARCH LABS (JAPAN) AND GODDARD SPACE FLIGHT CENTER (NASA) FOR ATS-1 OPERATIONS." JAN 1974, NASA, GODDARD SPACE FLIGHT CENTER, INTERNATIONAL PLANNING AND PROGRAMS, LETTER PROPOSAL

BARNIA, J. U.
0039 "SYSTEM 6218/ATS-5 SIGNAL DEMONSTRATION TEST: FINAL TECHNICAL REPORT." FEB 1971, SPACE AND MISSILE SYSTEMS ORGANIZATION, SAMSO-IR-71-35, CONTRACT NO. F04701-70-C-0281.

BARNLA, J.O.
0261 "EXECUTIVE SUMMARY OF 'SYSTEM 621B/ATS-5 SIGNAL DEMONSTRATION TEST, FINAL TECHNICAL REPORT'." FEB 71, USAF SPACE AND M
ISSILE SYSTEMS ORGANIZATION (SAMSO), TECH. MEMO.

BARNLA, J.O.
0503 "COMMUNICATIONS AND NAVIGATION EXPERIMENTS AT L-BAND USING ATS-5." APPLIED INFORMATION INDUSTRIES, MOORESTOWN, N.J., AP
RIL 1970.

BARNLA, J.O.
0989 "MARINE NAVIGATION AND COMMUNICATIONS AT L-BAND VIA SYNCHRONOUS SATELLITE." SUMMER 1971, APPLIED INFORMATION INDUSTRIES
, MOORESTOWN, NEW JERSEY, 08057, JOURNAL ARTICLE.

BARTON, T.
0462 SEE AUTHOR : DEZOUTE, O.J.

BARTON, T.H.
0493 "SATELLITE COMMUNICATIONS EXPERIMENTATION , FAA VHF EXPERIMENT." TEST AND EVALUATION DIVISION, COMMUNICATIONS BRANCH, F
AA, MAY 1967.

BATILE, J.O.
0673 SEE AUTHOR : DUBOSE, J.F.

BEATTIE, B.A.
0273 "REPORT ON ALASKA BIOMEDICAL SATELLITE COMMUNICATION PROJECT." APR-JUN 1972, LISTER HILL CENTER FOR BIOMEDICAL COMMUNIC
ATIONS, BETHESDA, MARYLAND.

BELEW, W.W.
0810 "THE PUBLIC SERVICE-COMMUNICATIONS TECHNOLOGY SATELLITE SYSTEM EVALUATION PLAN." DEC 1976, THE MITRE CORPORATION, METREX
DIVISION, MCLEAN, VA, 22101, TECHNICAL REPORT.

BELL TELEPHONE LABS
0237 SEE AUTHOR : PIERCE, J.R.

BELL, R.R.
0966 "THE CALIBRATION OF 20 AND 30 GHZ RADIOMETERS BY USING THE ATS-6 SATELLITE BEACONS." OCT 1977, POST OFFICE RESEARCH CEN
TRE, MARLESHAM HEATH, IPSWICH, UK, TECHNICAL REPORT, NTIS: N78-15340.

BELL, R.R.
0959 SEE AUTHOR : HOWELL, R.G.

BELLER, W.S.
0460 "ATS PROJECT SEEKS PRACTICAL PAYOFFS." MARCH 1966.

BENSTEAD, G.
0511 "SATELLITE COMMUNICATION PROJECT: EXPERIMENTAL YEAR ONE." APR 1975, UNIVERSITY OF THE SOUTH PACIFIC, LAUCALA BAY, SUVA,
FIJI.

BENSTEAD, G.
0749 "SATELLITE COMMUNICATION PROJECT." OCTOBER 1977, UNIVERSITY OF SOUTH PACIFIC, SUVA, FIJI, TECHNICAL REPORT.

BERKOWITZ, D.A.
0206 SEE AUTHOR : CUTTING, A.R.

BERRY, L.
0192 SEE AUTHOR : HALL, A.R.

BERRY, L.
0671 "NASA/ESSA WEFAX EXPERIMENT, PARTICIPANT'S GUIDE." NOV. 1966, ALLIED RESEARCH ASSOCIATES, INC. VIRGINIA ROAD, CONCORD, MA
SSACHUSETTS, TECHNICAL REPORT, 70X 75452.

BINDER, R.
0228 "ALOHA PACKET BROADCASTING - RETROSPECT." JAN 75; THE UNIV. OF HAWAII, THE ALOHA SYSTEM, HONOLULU, HAWAII, IR 075-4.

BIRKILL, S.-J.
0586 SEE AUTHOR : BAIRD, G.

BJORDAL, J.
0998 SEE AUTHOR : ARTHUR, C.W.

BLACK, P.G.
0105 SEE AUTHOR : FUJITA, Y.T.

BLACKMER, R. H.
0287 "ABSTRACTS OF FINAL REPORTS BY SRI CONCERNED WITH THE ANALYSIS OF ATS PHOTOGRAPHS TO OBTAIN CLOUD MOTION." 1969-71; SRI
, MENLO PARK, CALIFORNIA.

BLAKE, J.B.
0887 SEE AUTHOR : PAVLIKAS, G.A.

BLANK, H.A.
0883 "ANALYSIS OF VHF/UHF FREQUENCY DEPENDENCE, SPACE, AND POLARIZATION PROPERTIES OF IONOSPHERIC SCINTILLATION IN THE EQUAT
ORIAL REGION." COMPUTER SCIENCES CORPORATION, FALLS CHURCH, VA 22046, TECHNICAL REPORT, AIAA-73-38741.

BLEVIS, B.C.
0677 SEE AUTHOR : CASEY-STANMER, A.E.

BLOCK, C.
0P26 "A CASE STUDY OF INDIA'S SATELLITE INSTRUCTIONAL TELEVISION PROJECT (SITE)." JAN 1977, INSTITUTE FOR COMMUNICATION RESEAR
CH, STANFORD UNIVERSITY, CA, TECHNICAL REPORT, PH-AAD-648.

BOEING
0173 SEE AUTHOR : ALMUTT, M.W.

BOEING AEROSPACE CO.
0097 SEE AUTHOR : WOODCOCK, G.R.

BOEING COMMERCIAL AIRPLANE CO.
0288 SEE AUTHOR : SUTTON, R. W.

BOGOTT, F.H.
0081 "MAGNETOPAUSE ELECTRIC FIELD INFERRED FROM EMERGETIC PARTICLE MEASUREMENTS ON ATS-5." FEB 1971, UNIVERSITY OF CALIFORN
IA, BERKLEY, CALIFORNIA, SPACE SCIENCES LABORATORY, JOURNAL ARTICLE, *** JOURNAL OF GEOPHYSICAL RESEARCH, VOL. 76, NO. 4.

BOGOTT, F.H.
0089 "EQUATORIAL PROTON AND ELECTRON ANGULAR DISTRIBUTIONS IN THE LOSS CONE AND AT LARGE ANGLES." OCT 1971, UNIVERSITY OF C
ALIFORNIA AT BERKLEY, JOURNAL ARTICLE, *** JOURNAL OF GEOPHYSICAL RESEARCH, VOL. 76, NO. 28, PP. 6790-6805, OCT 1971 ***.

BOOK, JOHN L.
0509 "TECHNICAL ASPECTS OF THE HEALTH-EDUCATION TELECOMMUNICATIONS EXPERIMENT." NOV 1975, UNIVERSITY OF WASHINGTON, SEATTLE, WASH
INGTON, JOURNAL ARTICLE, 76A-17904, E1760320820.

BODIN, A.L.
0118 SEE AUTHOR : LEESE, J.A.

BOSTIAN, C.W.
0678 SEE AUTHOR : STUTZMAN, W.L.

BOSTIAN, C.W.
0802 "MAIN DEPOLARIZATION AND ATTENUATION MEASUREMENTS AT 11.7, 19.04, AND 28.56 GHZ: A DESCRIPTION OF THE EXPERIMENT AND SO
ME PRELIMINARY RESULTS." 1976, ELECTRICAL ENGINEERING DEPT., VIRGINIA POLYTECHNIC INSTITUTE, BLACKSBURG, VA. 24061, TECHNICAL

BOSTIAN, C.W.
0854 SEE AUTHOR : STUTZMAN, W.L.

BOSTIAN, C.W.
0919 "A DEPOLARIZATION AND ATTENUATION EXPERIMENT USING THE CTS SATELLITE. VOLUME 1. EXPERIMENT DESCRIPTION." 18 NOV 76, ELEC
TRICAL ENGINEERING DEPARTMENT, VIRGINIA POLYTECHNIC INSTITUTE & STATE UNIVERSITY, BLACKSBURG, VIRGINIA 24061, TECHNICAL RE

BOSTIAN, C.W.
0990 "A DEPOLARIZATION AND ATTENUATION EXPERIMENT USING THE CTS SATELLITE." FEBRUARY 1977, ELECTRICAL ENGINEERING DEPARTMENT
, VIRGINIA POLYTECHNIC INSTITUTE AND STATE UNIVERSITY, BLACKSBURG, VIRGINIA, 24061, TECHNICAL REPORT, NTIS: N77-21277.

BOSTIAN, C.W.
0991 "A DEPOLARIZATION AND ATTENUATION EXPERIMENT USING THE COMSTAR AND CTS SATELLITES." ELECTRICAL ENGINEERING DEPARTMENT,
VIRGINIA POLYTECHNIC INSTITUTE AND STATE UNIVERSITY, BLACKSBURG, VIRGINIA, 24061, TECHNICAL REPORT, NTIS: N78-21336.

BOTTONE, P.W.
0420 SEE AUTHOR : GATTERER, L.E.

BOUCHER, R.A.
0484 "VHF SATELLITES FOR MARITIME MOBILE COMMUNICATIONS." HUGHES AIRCRAFT CO., SPACE SYSTEMS DIVISION. MAY 1967.

BOWDITCH, M.
0186 "BROADCAST COMMISSION STUDIES TV FOR BETHEL." JUN 71, ANCHORAGE DAILY NEWS, NEWSPAPER ARTICLE.

BRADBURY, D. L.
0301 SEE AUTHOR : FUJITA, T. I.

BRADBURY, D.L.
0104 "DEVELOPMENT OF A DRY LINE AS SHOWN BY ATS CLOUD PHOTOGRAPHY AND VERIFIED BY RADAR AND CONVENTIONAL AEROLOGICAL DATA."
NOV 1969, DEPARTMENT OF GEOPHYSICAL SCIENCES, THE UNIVERSITY OF CHICAGO, TECH. REPT. NO. 80 (U.S. WEATHER BUREAU).

BRADBURY, D.L.
0109 SEE AUTHOR : FUJITA, T.I.

BRADY, C.
0054 "ALASKA COMMUNICATIONS." MAR 1975, UNKNOWN.

BRADY, C.
0531 SEE AUTHOR : WILSON, M.R.

BRAIN, A.E.
0080 SEE AUTHOR : ENDLICH, M.M.

BRAIN, A.E.
0107 SEE AUTHOR : SEREBRENY, S.M.

BRADLEY, M.C.
0050 SEE AUTHOR : MALOV, J.E.

BRAMBLE, W.J.
0676 "AESF DATA BASE INFORMATION." 1974, RESOURCES COORDINATING CENTER, UNIVERSITY OF KENTUCKY, LEXINGTON, KENTUCKY, TECHNICAL REPORT, ED 103 006.

BRAMBLE, W.J.
0771 SEE AUTHOR : MERIENS, D.M.

BRAMBLE, W.J.
0817 SEE AUTHOR : HARDING, L.

BRAMBLE, W.J.
0819 SEE AUTHOR : RODGER, M.

BRAMBLE, W.J.
0933 "USER RATINGS OF INSTRUCTIONAL ACTIVITIES: DIAGNOSTIC AND PRESCRIPTIVE READING INSTRUCTION, SUMMER, 1974. TECHNICAL REPORT NO. 6." JULY 75, RESOURCE COORDINATING CENTER, UNIVERSITY OF KENTUCKY, LEXINGTON, KENTUCKY, TECHNICAL REPORT, OTHER: E

BRAMBLE, W.J.
0938 "PERFORMANCE OF AESF TRANSMISSION/RECEPTION EQUIPMENT: SUMMER AND FALL, 1974. TECHNICAL REPORT NO. 5." JULY 75, RESOURCE COORDINATING CENTER, UNIVERSITY OF KENTUCKY, LEXINGTON, KENTUCKY, TECHNICAL REPORT, OTHER: ED 114 063.

BRAMBLE, W.J.
0622 "EDUCATION ON THE BEAM: A PROGRESS REPORT ON THE APPALACHIAN EDUCATION SATELLITE PROJECT." APRIL 1975, RESOURCES COORDINATING CENTER, UNIVERSITY OF KENTUCKY, LEXINGTON, KENTUCKY, PROGRESS REPORT, PAPER, ED RS ED 108660.

BRAMBLE, W.J.
0723 "APPALACHIAN EDUCATION SATELLITE PROJECT(AESP) - OVERVIEW." MARCH 1974, RESOURCES COORDINATING CENTER, 306 FRAZEE HALL, UNIVERSITY OF KENTUCKY, LEXINGTON, KENTUCKY 40506, TECHNICAL REPORT, ED 103 007.

BRAMBLE, W.J.
0743 "A FOLLOW-UP REPORT ON THE APPALACHIAN EDUCATION SATELLITE PROJECT." 1976, APPALACHIAN EDUCATION SATELLITE PROJECT, RESOURCES COORDINATING CENTER, UNIVERSITY OF KENTUCKY, LEXINGTON, KENTUCKY, JOURNAL ARTICLE.

BRAMBLE, W.J.
0755 "STUDENT ACHIEVEMENT: DIAGNOSTIC AND PRESCRIPTIVE READING INSTRUCTION, SUMMER, 1974. TECHNICAL REPORT NO. 8." AUGUST 1975, RESOURCE COORDINATING CENTER, UNIVERSITY OF KENTUCKY, LEXINGTON, KENTUCKY, TECHNICAL REPORT, ED 114 066.

BRAMBLE, W.J.
0756 "FORMATIVE EVALUATION STUDY FOR AESF DIAGNOSTIC AND PRESCRIPTIVE READING COURSE. TECHNICAL REPORT NUMBER THREE." OCTOBER 1974, RESOURCE COORDINATING CENTER, UNIVERSITY OF KENTUCKY, LEXINGTON, KENTUCKY, TECHNICAL REPORT, ED 103 008.

BRAMBLE, W.J.
0757 "THE EVALUATION DESIGN: SUMMER COURSES, 1974. TECHNICAL REPORT NUMBER FOUR." DECEMBER 1974, RESOURCE COORDINATING CENTER, UNIVERSITY OF KENTUCKY, LEXINGTON, KENTUCKY, TECHNICAL REPORT, ED 103 009.

BRAMBLE, M.-J.
0758

SEE AUTHOR : MARION, R.

BRAMBLE, M.-J.
0759

"COST ESTIMATION MODEL FOR ALTERNATIVE FORMATS AND DELIVERY MODES. TECHNICAL REPORT NUMBER TEN." SEPTEMBER 1975, RESOURCE COORDINATING CENTER, UNIVERSITY OF KENTUCKY, LEXINGTON, KENTUCKY, TECHNICAL REPORT, ED 121 262.

BRAMBLE, M.-J.
0761

"SUMMATIVE EVALUATION OF DIAGNOSTIC AND PRESCRIPTIVE READING INSTRUCTION K-6 COURSE, SPRING, 1975." SEPTEMBER 1975, RESOURCE COORDINATING CENTER, UNIVERSITY OF KENTUCKY, LEXINGTON, KENTUCKY, ED 110 141.

BRANCHFLOWER, G.A.
0112

SEE AUTHOR : KOENIG, E.W.

BRANDL, D.L.
0682

"MARAD MARITIME EXPERIMENTS USING THE NASA ATS-6 SATELLITE." OCT. 1975, ELECTRONIC AND AEROSPACE SYSTEMS CONVENTION, WASHINGTON, D.C., PAPER, 76A 40645.

BRANDL, L.I.
0876

COL. HENRY W., USAF
"SATELLITE METEOROLOGY." AUG 76, HEADQUARTERS AIR WEATHER SERVICE (HAWC), SCOTT AIR FORCE BASE, ILLINOIS, 62225, TECHNICAL REPORT, ORIGINATOR: AWC-TR-76-264, OTHER: ADA-087090.

BRANDL, H.M.
0547

SEE AUTHOR : SHYDER, J.F.

BRANSFORD, L.A.
0769

SEE AUTHOR : MOTT, R.A.

BRAUNSTEIN, JEAN
0509

SEE AUTHOR : BOOR, JOHN L.

BRAUNSTEIN, JEAN
0510

"TECHNICAL EVALUATION OF THE HEALTH/EDUCATION TELECOMMUNICATIONS EXPERIMENT." APR 1976, FEDERATION OF ROCKY MOUNTAIN STATES, TECHNICAL REPORT.

BRECCEN, I.C.
0840

SEE AUTHOR : HENDERSON, E.

BRESNAHAN, L.F.
0205

"A PROPOSAL FOR AN EXPERIMENT IN EDUCATIONAL COMMUNICATIONS." JUL 73; UNIV. OF THE SOUTH PACIFIC, LAULALA BAY, SUVA, FIJI.

BRISKEN, A.F.
0536

SEE AUTHOR : ANDERSON, R.E.

BRISKEN, A.F.
0613

"ATS-5 TRIANGULATION SUPPORT." DEC 1975, GENERAL ELECTRIC COMPANY, CORPORATE RESEARCH AND DEVELOPMENT, SCHEMECTADY, NEW YORK, TECHNICAL REPORT.

BRISKEN, A.F.
0767

"APPLICATION OF SATELLITE COMMUNICATION AND POSITION FIXING TECHNIQUES TO LAND MOBILE SYSTEMS." APR 1977, GENERAL ELECTRIC COMPANY, SCHEMECTADY, N.Y., TECHNICAL REPORT.

BRISKEN, A.F.
0875

"L-BAND TONE-CODE-DATA TRANSPONDER CALIBRATION." JAN 1977, GENERAL ELECTRIC COMPANY, CORPORATE RESEARCH AND DEVELOPMENT, SCHEMECTADY, N.Y., TECHNICAL REPORT, NITS: N77-21276; NASA: NASA-CR-152471, ORIGINATOR NO.: SRD-77-038.

BRISKEN, A.F. "ATS-3 RANGING SUPPORT." JAN 77, GENERAL ELECTRIC COMPANY, CORPORATE RESEARCH AND DEVELOPMENT, SCHEMECTADY, NEW YORK, TE
0631 CINCAL REPORT, NTIS: N77-21275, NASA: NASA-CR-152470.

BRISKEN, AXEL F. "L-BAND TRILATERATION OF ATS-S." JUN 75; GENERAL ELECTRIC COMPANY, CORPORATE RESEARCH AND DEVELOPMENT, SCHEMECTADY, NEW YORK
0235 JOURNAL ARTICLE.

BRISKEN, A.F. "CONTINENTAL LAND MOBILE COMMUNICATIONS AND AUTOMATIC POSITION FIXING VIA SATELLITE." APR 1977, GENERAL ELECTRIC CO., CORP
0631 ORATE RESEARCH AND DEVELOPMENT, SCHEMECTADY, N.Y. 12345, PAPER.

BRISTON, C.L. (EDITOR)
0905 "CENTRAL PROCESSING AND ANALYSIS OF GEOSTATIONARY SATELLITE DATA." MAR 75, NATIONAL ENVIRONMENTAL SATELLITE SERVICE, NOAA
A, WASHINGTON, D.C., 20235, TECHNICAL MEMORANDUM, ORIGINATOR: COM-75-10853.

BRITISH BROADCASTING CORPORATION
0008 SEE AUTHOR : SAVAGE, D.C.

BROWN III, W.E.
0974 "DESCRIPTION OF A REMOTE IONOSPHERIC SCINTILLATION DATA COLLECTION FACILITY." MARCH 1974, DEPARTMENT OF TRANSPORTATION,
TRANSPORTATION SYSTEMS CENTER, MENDALL SQUARE, CAMBRIDGE, MA 02142, TECHNICAL REPORT, NTIS: PB-230 893, ORIGINATOR NO.: D

BROWN III, W.E.
0982 "A TECHNIQUE FOR MEASURING FADING MICROWAVE SIGNALS FROM THE ATS-S SPACECRAFT." MARCH 1976, DEPARTMENT OF TRANSPORTATION,
TRANSPORTATION SYSTEMS CENTER, CAMBRIDGE, MASS., JOURNAL ARTICLE, OTHER: AIAA 78A 31037.

BROWN III, W.E.
0607 "MIDLATITUDE MEASUREMENTS OF L-BAND IONOSPHERIC SCINTILLATION WITH THE ATS-S SPACECRAFT." SEP 1975, U.S. DEPARTMENT OF
TRANSPORTATION, TRANSPORTATION SYSTEMS CENTER, MENDALL SQUARE, CAMBRIDGE, MASS. 02142, TECHNICAL REPORT, PB-246 286.

BROWN, D.L.
0444 "ATS-6 EUROPEAN L-BAND AERONAUTICAL EXPERIMENTS." SEP 1976, EUROPEAN SPACE RESEARCH AND TECHNOLOGY CENTRE, MOORDRIJK, NETHERLANDS, PAPER, A77-49908.

BROWN, K.L.
0921 "EARLY OPERATIONAL EXPERIENCE WITH A NEW TDMA SYNCHRONIZATION SYSTEM THROUGH CTS." OCT 76, COMMUNICATIONS RESEARCH CENTRE,
PE, DEPARTMENT OF COMMUNICATIONS, OTTAWA, CANADA, TECHNICAL NOTE, NTIS: N77-23294, ORIGINATOR: CRC-TN-682.

BROWNER, S.
0571 SEE AUTHOR : GRIFFITH, C.G.

BROWNING, D.J.
0954 "THE ATS-6 PROPAGATION MEASUREMENT SYSTEM AT THE UNIVERSITY OF BIRMINGHAM, UK." OCT 1977, UNIVERSITY OF BIRMINGHAM, DEPARTMENT OF ELECTRICAL AND ELECTRONIC ENGINEERING, BIRMINGHAM, UK, TECHNICAL REPORT, NTIS: N78-15335.

BROWNING, D.J.
0955 SEE AUTHOR : PRATT, I.

BROWNING, D.J.
0962 SEE AUTHOR : PRATT, I.

BROWNING, U.-J.
U968 "LOW-ANGLE PROPAGATION FROM AIS-6 AT 30 GHZ." OCT 1977, UNIVERSITY OF BIRMINGHAM, BIRMINGHAM, UM. TECHNICAL REPORT, N11
S: N78-15349.

BRUSSAARD, G.
U797 "OUTLINE OF AIS-6 PROPAGATION MEASUREMENTS OVER EUROPE." DEC 1976, PAPER.

BRUSSAARD, G.
U953 "OUTLINE OF AIS-6 PROPAGATION EXPERIMENTS OVER EUROPE." OCT 1977, SPACE COMMUNICATIONS DIVISION, ESTEC, NOORDWIJJK, THE
NETHERLANDS, INDEX OF USERS, NTIS: N78-15334, ORIGINATOR NO: ESA-SP-131.

BRYAN, J.-W.
U870 SEE AUTHOR : VONBUN, F.O.

BUCK, C.L.
U834 "REPORT ON ALASKA USE OF AIS-1 SATELLITE." OCT 1972- JUNE 1973, STATE OF ALASKA, OFFICE OF TELECOMMUNICATIONS, PROG. RE
PT.

BUCK, C.L.
U861 "REPORT ON ALASKA USE OF THE AIS-1 SATELLITE." MAY 1973, STATE OF ALASKA, OFFICE OF THE GOVERNOR, OFFICE OF TELECOMMUNI
CATIONS TECH. REPT.

BUCK, C.L.
U862 "PROPOSAL FOR THE CONTINUED USE OF NASA'S AIS-1 SATELLITE FOR ALASKA." MAY 1973, STATE OF ALASKA, GOVERNOR'S OFFICE, O
FFICE OF TELECOMMUNICATIONS, PROPOSAL.

BUCKWAY, P.
U140 "PROGRAM SCHEDULING OF AIS-1 FOR ALASKA EDUCATION EXPERIMENT." APR 73, ACTION STUDY SATELLITE PROJECT, UNIVERSITY OF A
LASKA, ANCHORAGE, ALASKA, TECH. MEMO.

BURKE, J.-R.
U254 "SATELLITE DEVELOPMENTS AND THE AIS-6." MAY 75, JOINT COUNCIL ON EDUCATIONAL TELECOMMUNICATIONS, WASHINGTON, D.C., JOU
RNAL ARTICLE *** AUDIOVISUAL INSTRUCTION, PP. 12, 14-16, MAY 75.

BURRESON, B.-J.
U777 SEE AUTHOR : THOMPSON, A.O.

BURRIT, D.
U809 SEE AUTHOR : CHINNICK, J.H.

BURRIT, D.
U968 SEE AUTHOR : CHINNICK, J.H.

BUYLEN-PAISLEY, M.
U625 "USING AIS-6 FOR CONTINUING MEDICAL EDUCATION AND HEALTH CARE IN APPALACHIA." APR 1975, APPLIED COMMUNICATIONS RESEARCH, S
TANFORD, CALIF., PAPER.

BUTLER, H.-I.
U102 "NASA METEOROLOGICAL AND COMMUNICATIONS SATELLITE PROGRAMS." FEB 1969, OPERATIONAL SATELLITES OFFICE, GODDARD SPACE FL
IGHT CENTER, TECH. REPT., NASA-X-482-69-16, INASA).

BYDE, G.
U674 SEE AUTHOR : KING, J.-L.

BYKOWSKI, R.F.
 0019 SEE AUTHOR : REED, W.L.

BYKOWSKI, RONALD F.
 0020 "PROJECT SEARCH SATELLITE COMMUNICATIONS EXPERIMENT." 1972; SEARCH GROUP, INC., SACRAMENTO, CALIFORNIA.

BYSTROM, J.W.
 0012 "SECOND INTERIM REPORT TO THE NATIONAL AERONAUTICS AND SPACE ADMINISTRATION FROM THE UNIVERSITY OF HAWAII." FEB 1972, THE UNIVERSITY OF HAWAII, PAN PACIFIC EDUCATION AND COMMUNICATION EXPERIMENTS BY SATELLITES (PEACESAT PROJECT), PROG. REPT.

BYSTROM, J.W.
 0064 "PEACESAT: CONTINUATION PROPOSAL." OCTOBER 1973, UNIVERSITY OF HAWAII, HONOLULU, PROPOSAL, (LISTER HILL NATIONAL CENTER FOR BIOMEDICAL COMMUNICATIONS, NATIONAL LIBRARY OF MEDICINE).

BYSTROM, J.W.
 0065 "PEACESAT PRESS RELEASE KIT." OCTOBER 1973, UNIVERSITY OF HAWAII, HONOLULU, NEWSPAPER ARTICLE, (LISTER HILL NATIONAL CENTER FOR BIOMEDICAL COMMUNICATIONS, NATIONAL LIBRARY OF MEDICINE).

BYSTROM, J.W.
 0066 "SUPPLEMENTAL EVALUATION REPORT: PAN PACIFIC EDUCATION AND COMMUNICATION EXPERIMENTS BY SATELLITE--VOL I." AUG 1973, UNIVERSITY OF HAWAII, HONOLULU, PROGRESS REPORT, (LISTER HILL NATIONAL CENTER FOR BIOMEDICAL COMMUNICATIONS, NATIONAL LIBRARY OF MEDICINE).

BYSTROM, J.W.
 0067 "SUPPLEMENTAL EVALUATION REPORT: PAN PACIFIC EDUCATION AND COMMUNICATION EXPERIMENTS BY SATELLITE--VOL II." AUG 1973, UNIVERSITY OF HAWAII, HONOLULU, PROGRESS REPORT, (LISTER HILL NATIONAL CENTER FOR BIOMEDICAL COMMUNICATIONS, NATIONAL LIBRARY OF MEDICINE).

BYSTROM, J.W.
 0068 "PACIFIC SATELLITE HEALTH INFORMATION STUDY--FINAL REPORT." MAY 1974, UNIVERSITY OF HAWAII, HONOLULU, FINAL TECH. REPORT., CONTRACT NO. NIH-72-4706, (LISTER HILL NATIONAL CENTER FOR BIOMEDICAL COMMUNICATIONS, NATIONAL LIBRARY OF MEDICINE).

BYSTROM, J.W.
 0091 "REPORT ON PAN PACIFIC EDUCATION AND COMMUNICATION EXPERIMENTS BY SATELLITE PROJECT (PEACESAT) OF THE UNIVERSITY OF HAWAII FOR APRIL 1971-DECEMBER 1972." MAR 1973, UNIVERSITY OF HAWAII, TECH. REPORT.

BYSTROM, J.W.
 0092 "REPORT ON PAN PACIFIC EDUCATION AND COMMUNICATION EXPERIMENTS BY SATELLITE PROJECT (PEACESAT) OF THE UNIVERSITY OF HAWAII FOR APRIL 1971-DECEMBER 1972: PART III -- A REQUEST FOR CONTINUING USE OF ATS-1 SATELLITE FOR A PERIOD ENDING DECEMBER 1972." MAR 1973, UNIVERSITY OF HAWAII, TECH. REPORT.

BYSTROM, J.W.
 0093 "REPORT ON PAN PACIFIC EDUCATION AND COMMUNICATION EXPERIMENTS BY SATELLITE PROJECT (PEACESAT) OF THE UNIVERSITY OF HAWAII FOR APRIL 1971 - DECEMBER 1972: ATTACHMENT A -- THE PEACESAT SYSTEM EQUIPMENT." MAR 1973, UNIVERSITY OF HAWAII, TECH. REPORT.

BYSTROM, J.W.
 0094 "REPORT ON PAN PACIFIC EDUCATION AND COMMUNICATION EXPERIMENTS BY SATELLITE PROJECT (PEACESAT) OF THE UNIVERSITY OF HAWAII FOR APRIL 1971-DECEMBER 1972: ATTACHMENT B -- INDEX OF USERS." MAR 1973, UNIVERSITY OF HAWAII, INDEX OF USERS.

BYSTROM, J.W.
 0095 "REPORT ON PAN PACIFIC EDUCATION AND COMMUNICATION EXPERIMENTS BY SATELLITE PROJECT (PEACESAT) OF THE UNIVERSITY OF HAWAII FOR APRIL 1971-DECEMBER 1972: ATTACHMENT C -- PHOTOS." MAR 1973, UNIVERSITY OF HAWAII, NEWSPAPER ARTICLE/PRESS RELEASE

BYSTROM, J.W.
 U096 "REPORT ON PAN PACIFIC EDUCATION AND COMMUNICATION EXPERIMENTS BY SATELLITE PROJECT (PEACESAT) OF THE UNIVERSITY OF HAWAII FOR APRIL 1971-DECEMBER 1972: ATTACHMENT D -- PROPOSALS SUMMARIES - NASA, NLM, NSMMA, ATTACHMENT E -- NLM PROPOSAL, A
 BYSTROM, J.W.
 U211 "CORRESPONDENCE BETWEEN BYSTROM AND MARSTEN." 70-73; UNIV. OF HAWAII, PEACESAT, HONOLULU, HAWAII.
 BYSTROM, J.W.
 U214 "THE PEACESAT PROJECT: TELECOMMUNICATIONS AND INTERNATIONAL DEVELOPMENT IN HEALTH AND EDUCATION." 1972; UNIVERSITY OF HAWAII, PEACESAT, HONOLULU, HAWAII.
 BYSTROM, J.W.
 U215 "RESPONSE TO NASA CRITICISM OF PEACESAT COMBINED PROPOSAL AND REPORT." DCI 73; UNIV. OF HAWAII, PEACESAT, HONOLULU, HAWAII.
 BYSTROM, J.W.
 U216 "PEACESAT PROPOSAL FOR EXPERIMENTAL USE OF APPLICATIONS TECHNOLOGY SATELLITES." OCT 69; UNIV. OF HAWAII, PEACESAT, HONOLULU, HAWAII.
 BYSTROM, J.W.
 U217 "REPORT AND REQUEST TO NASA FROM PEACESAT." AUG 70; UNIV. OF HAWAII, PEACESAT, HONOLULU, HAWAII.
 BYSTROM, J.W.
 U220 "PEACESAT REQUEST AND PROPOSAL TO NASA FROM THE UNIVERSITY OF HAWAII AS AGENT FOR THE STATE OF HAWAII." DEC 70; UNIV. OF HAWAII, PEACESAT, HONOLULU, HAWAII.
 BYSTROM, J.W.
 U822 "SATELLITE COMMUNICATION FOR SOCIAL DEVELOPMENT." MAR 1976, PEACESAT, UNIVERSITY OF HAWAII, HONOLULU, HAWAII, JOURNAL ARTS
 CLE.
 BYSTROM, J.W.
 U853 "THE PEACESAT PROJECT." 1972, PEACESAT, UNIVERSITY OF HAWAII, HONOLULU, HAWAII.
 BYSTROM, J.W.
 U517 "PEACESAT PAN PACIFIC EDUCATION AND COMMUNICATION EXPERIMENTS BY SATELLITE PROJECT SOCIAL APPLICATIONS: EARLY USES OF INTERNATIONAL TWO-WAY COMMUNICATIONS BY SATELLITE FOR SOCIAL DEVELOPMENT. REPORT 2." OCT 1975, PEACESAT, UNIVERSITY OF HAWAII, HONOLULU, HAWAII.
 BYSTROM, J.W.
 U580 "SATELLITE COMMUNICATION APPLIED TO THE NEEDS OF DEVELOPING AREAS: THE PEACESAT EXPERIMENT." 12-14 AUGUST 1974, INTERNATIONAL CONFERENCE OF COMPUTER COMMUNICATIONS, STOCKHOLM, SWEDEN, PAPER, CI 76D 96 3819.
 BYSTROM, J.W.
 U700 "PEACESAT PROJECT: EARLY EXPERIENCE." OCTOBER 1975, PEACESAT, UNIVERSITY OF HAWAII, HONOLULU, HAWAII, TECHNICAL REPORT.
 BYSTROM, J.W.
 U701 "PEACESAT PROJECT: NETWORKS." NOVEMBER 1975, PEACESAT, UNIVERSITY OF HAWAII, HONOLULU, HAWAII, TECHNICAL REPORT.

BYSTROM, J. V. "PEACESAT NEWS FILE 1970-1975." SEPTEMBER 1975, PEACESAT, UNIVERSITY OF HAWAII, HONOLULU, HAWAII, NEWSPAPER ARTICLE.
0702

BYSTROM, J. V. "A SATELLITE COMMUNICATION SYSTEM: GLOBAL DEVELOPMENT AND CULTURAL IMPERIALISM." 1976, PEACESAT, UNIVERSITY OF HAWAII, HONOLULU, HAWAII, PAPER.
0704

BYSTROM, J. V. "THE APPLICATION OF SATELLITES TO INTERNATIONAL INTERACTIVE SERVICE SUPPORT COMMUNICATION." PEACESAT PROJECT, UNIVERSITY OF HAWAII, HONOLULU, HAWAII, JOURNAL ARTICLE, 1975.
0707

BYSTROM, J. V. "PEACESAT EXPERIMENT - GENERAL DESCRIPTION 1971-1976." SEPTEMBER 1976, JOHN BYSTROM, UNIVERSITY OF HAWAII, HONOLULU, HAWAII, JOURNAL ARTICLE, EJ 146 899.
0705

C.C.I.R. STUDY GROUPS
"TECHNICAL CHARACTERISTICS OF SYSTEMS INVOLVING PROVIDING COMMUNICATION AND/OR RADIO DETERMINATION USING SATELLITE TECHNIQUE S FOR AIRCRAFT AND/OR SHIPS." APR 1972, C.C.I.R. STUDY GROUPS, ANNAPOLIS, MARYLAND, PROGRESS REPT. DOC. 8/139E.
0710

C.C.I.R. STUDY GROUP IVD/III
"L-BAND MARINE NAVIGATION AND COMMUNICATIONS EXPERIMENT." DRAFT REPORT. JULY 1970.
0486

CABRERA, P. L. "PARTICIPATION OF CINE IN COMSAT EXPERIMENT." OCT 1977, CINE, MADRID, SPAIN, TECHNICAL REPORT, NTIS: N78-15350.
0767

CALDWELL, D. E. SEE AUTHOR : SHAMASHIM, R. B.
0740

CALDWELL, K. S. "THE VETERANS ADMINISTRATION EXPERIMENTS IN HEALTH COMMUNICATIONS ON THE APPLICATIONS TECHNOLOGY SATELLITE (ATS-6)." 1976
0576
APPLIED COMMUNICATION RESEARCH, STANFORD, CALIFORNIA, TECHNICAL REPORT, EOMS 119 719.

CALDWELL, K. S. SEE AUTHOR : SHAMASHIM, R. B.
0741

CALIFORNIA COUNCIL ON CRIMINAL JUSTICE
SEE AUTHOR : BYKOWSKI, RONALD F.
0280

CALIFORNIA STATE UNIVERSITY
SEE AUTHOR : JANZA, FRANK J.
0197

CALJO, A. J. "SPEECH TO PUBLIC SERVICE SATELLITE CONSORTIUM MEETING." 4 OCT 1978, NASA, WASHINGTON, D.C., SPEECH.
0781

CAMPBELL, M. J. "HERMES DATA EXPERIMENT." OCT 77, COMMUNICATIONS RESEARCH CENTRE, SPACE TECHNOLOGY AND APPLICATIONS BRANCH, OTTAWA, CANADA, TECHNICAL REPORT, NTIS: N79-12269, ORIGINATOR: CRC-1109, OTHER: 207200.
0894

CARD, M. L. "SMALL EARTH STATIONS FOR BROADCASTING SATELLITE SYSTEMS." MAR 1975, SPACE SYSTEMS PLANNING, COMMUNICATION CANADA, 100 METE ALLE STREET, OTTAWA, ONTARIO, CANADA KIA 0G6, JOURNAL ARTICLE, ERTSD 534 731.
0557

CARDUCCI, M.M.
U965 "MARITIME SATELLITE SERVICE: POSSIBLE APPLICATIONS." COMMUNICATIONS SATELLITE CORP., WASH. D.C., MAY 1967.

CAREY, I.S.
U930 "CANADIAN TELEMEDICINE EXPERIMENT U-6." UNIVERSITY OF WESTERN ONTARIO AND LONDON HEALTH ASSOCIATION (UNIVERSITY HOSPITAL), TECHNICAL REPORT.

CARLING, C.G.
U767 SEE AUTHOR : HARNLE, M.H.

CARLISLE, H.U.D.
U913 "IS THERE A SATELLITE IN YOUR FUTURE?" MAR 77, CHANGE, JOURNAL ARTICLE.

CARMAN, U.
U717 SEE AUTHOR : MISKADDON, U.

CARMHAM, C.E.
U517 "INFORMING THE PUBLIC OF STS-SPACELAB BENEFITS-A CASE HISTORY." 2-4 JUNE 1976, MARTIN MARIETTA AEROSPACE, DENVER, COLORADO, JOURNAL ARTICLE, 76A 92357.

CARR, D.L.
U087 SEE AUTHOR : SHARP, R.D.

CARR, J.
U893 "IONOSPHERIC PROPAGATION FACTORS STUDIES." 1972, CANADIAN RESEARCH CENTRE, CANADA, INFORMAL NOTES.

CARR, J.S.
U053 "AEROSAT GROUND ENVIRONMENT AND TEST PLAN." 17-19 SEPT. 1973, ELECTRONICS AND AEROSPACE SYSTEMS CONVENTION, WASHINGTON, D.C., PAPER, 74A 12191.

CARTER, L.J.
U939 "VIDEOCONFERENCES VIA SATELLITE: OPENING CONGRESS TO THE PEOPLE?" 1977, THE GEORGE WASHINGTON UNIVERSITY, WASHINGTON, D.C., 20052, JOURNAL ARTICLE.

CASEY-STANMER, A.E.
U577 "CANADIAN EXPERIMENTS IN THE SOCIAL APPLICATIONS OF SATELLITE TELECOMMUNICATIONS." JUN 1975, AIAA CONFERENCE ON COMMUNICATIONS SATELLITES FOR HEALTH/EDUCATION APPLICATIONS, DENVER COLORADO, JULY 21-23 1975, PAPER, A75-30000.

CASEY-STANMER, A.E.
U827 "THE HERMES COMMUNICATIONS TECHNOLOGY SATELLITE PROJECT." JAN 1977, DEPARTMENT OF COMMUNICATIONS, OTTAWA, ONTARIO, CANADA, TECHNICAL REPORT.

CASEY-STANMER, A.E.
U828 "A DISCUSSION OF CANADIAN TELEHEALTH CARE EXPERIMENTS CONDUCTED WITH THE HERMES SATELLITE." 12-17 SEP 1976, SOCIAL POLICY AND PROGRAM BRANCH, DEPARTMENT OF COMMUNICATIONS, OTTAWA, ONTARIO, CANADA, PAPER.

CASEY, A.I.
U964 SEE AUTHOR : BELL, R.W.

CATCH, U.
U002 "BEYOND A75-6: SOCIAL USES OF COMMUNICATIONS." JUNE 1974, ASPEN INSTITUTE FOR HUMANISTIC STUDIES, PALO ALTO, CALIFORNIA, PAPER, U0 121 114.

LESSNA, J.M. SEE AUTHOR : FRITZ, T.A.
 U006

CHAMBERLAIN, H.P.
 0707 "TRANSPARTABLE TELECOMMUNICATIONS SYSTEM." BELL CANADA, TELESAT CANADA, TECHNICAL REPORT.

CHAM, H.C. SEE AUTHOR : TAYLOR, D.P.
 U003

CHAM, S.
 U005 "TELECOMMUNICATION IN MEDICAL EDUCATION AND HEALTH CARE--PROFILE OF 33 PROJECTS." 1975, OFFICE OF MEDICAL EDUCATION, RESEARCH AND DEVELOPMENT, FEE HALL EAST, MICHIGAN STATE UNIVERSITY, EAST LANSING, MICHIGAN, 98023, TECHNICAL REPORT.

CHANDER, R.
 U040 "PLANNING FOR SATELLITE BROADCASTING: THE INDIAN INSTRUCTIONAL TELEVISION EXPERIMENT." 1976, UNITED NATIONS EDUCATIONAL, SCIENTIFIC, AND CULTURAL ORGANIZATION, PARIS, FRANCE, TECHNICAL MEMORANDUM, ERIC: ED146098.

CHANG, Y.
 U030 "ANALYSIS OF ANVIL GROWTH FROM ATS PICTURES." JULY 1974, DEPT. OF GEOPHYSICAL SCIENCES, UNIVERSITY OF CHICAGO, CHICAGO, ILL., RESEARCH PAPER, COM-75-10731.

CHARILL, M. SEE AUTHOR : BUCKWAY, P.
 D190

CHARITRANU, R.L. SEE AUTHOR : WOOD, F.B.
 U051

CHARITRANU, R.L. SEE AUTHOR : WOOD, F.B.
 U045

CHENET, L.A.
 U060 "SATELLITE/BUOY READOUT PROGRAM." GENERAL ELECTRIC CO., MISSILE AND SPACE DIVISION, P.O. BOX 0555, PHILADELPHIA, PA. 19101, TECHNICAL REPORT, ORIGINATOR: 69502130, OTHER: AD 050145.

CHENET, L.A. ET. AL.
 U074 "SATELLITE / BUOY READOUT PROGRAM." GENERAL ELECTRIC RE-ENTRY AND ENVIRONMENTAL SYSTEMS DIVISION, DEC. 1969.

CHI, A.H.
 U025 "PRECISE TIME DISSEMINATION EXPERIMENT." JUL 1974, GSFC PROGRESS REPT., PROJECT NO. 636-18-S1-00.

CHI, A.H.
 U014 "PRECISE TIME DISSEMINATION EXPERIMENT USING THE ATS-1 SATELLITE." OCT 1975, NASA, GODDARD SPACE FLIGHT CENTER, GREENBELT, MD. 20771, TECH. REPORT, AD-8029 311.

CHINNICK, J.H.
 U009 "CANADIAN AERONAUTICAL SATELLITE TESTS USING THE ATS-6 SATELLITE. 1974-1975." FEB 1978, TECHNICAL REPORT.

CHINNICK, J.H.
 U088 "CANADIAN AERONAUTICAL SATELLITE TESTS USING THE ATS-6 SATELLITE." JANUARY 1976, COMMUNICATIONS RESEARCH CENTER, DEPARTMENT OF COMMUNICATIONS, OTTAWA, CANADA, TECHNICAL MEMORANDUM, N115: N19-12270.

CHU, W.L.
0170 SEE AUTHOR : THOMPSON, A.D.
CIVIL AVIATION DEPARTMENT
0195 SEE AUTHOR : GLOSSIP, G.
CLARK, R.L.
0673 SEE AUTHOR : DUBOSE, J.F.
CLARK, J.F.
0615 "SATELLITE COMMUNICATIONS AT THE GODDARD SPACE FLIGHT CENTER." MAR 1976, JOURNAL ARTICLE, 76A 25192.

CLASSEN, H.G.
0113 "REMOTE SENSING VIA SATELLITE: THE CANADIAN EXPERIENCE." 1973, CANADIAN DEPARTMENT OF ENERGY, MINES, AND RESOURCES, 0
0109 ITAWA, ONTARIO, JOURNAL ARTICLE, *** IMPACT OF SCIENCE ON SOCIETY, VOL. XXIV, NO. 3, 1974, PP 213-220 ***.

CLAYTON, W.H.
0009 "APPLICATION FOR USE OF ATS-VHF STATION ON BOARD THE T/V TEXAS CLIPPER." MAR 1974, TEXAS A&M UNIVERSITY, MOODY COLLEGE
OF MARINE SCIENCES AND MARITIME RESOURCES, APPLICATION FOR USE OF ATS SATELLITE.

CLIPPINGER, J.H.
0570 "WHO GAINS BY COMMUNICATIONS DEVELOPMENT? STUDIES OF INFORMATION TECHNOLOGIES IN DEVELOPING COUNTRIES." JAN. 1976, PROGRAM
ON INFORMATION TECHNOLOGIES AND PUBLIC POLICY, HARVARD UNIVERSITY, CAMBRIDGE, MASS. 02138, WORKING PAPER.

COATES, J.L.
0673 SEE AUTHOR : DUBOSE, J.F.
COATES, V.I.
0851 SEE AUTHOR : WOOD, F.B.
COATES, V.I.
0945 SEE AUTHOR : WOOD, F.B.
COCHRAN, D.R.
0542 SEE AUTHOR : GABY, D.C.
COLEMAN, JR., P.J.
0083 SEE AUTHOR : CUMMINGS, W.D.
COLEMAN, JR., P.J.
0085 "SOMETIME DISTURBANCE FIELDS AT ATS-1," JAN 1971, UNIVERSITY OF CALIFORNIA AT LOS ANGELES; GRAMBLING COLLEGE, LOUISIANA
JOURNAL ARTICLE, *** JOURNAL OF GEOPHYSICAL RESEARCH, VOL. 76, NO. 1, PP. 51-62, JAN 1971 ***.

COLEMAN, JR., P.J.
0090 SEE AUTHOR : PATIL, V.L.
COLEMAN, P.J.
0891 SEE AUTHOR : MCPHERSON, R.L.
COLL, D.C.
0744 SEE AUTHOR : HUDSON, H.E.
COLLING, D.
0114 SEE AUTHOR : MORITA, Y
COLLINS, L.A.
0239 "A PROPOSAL FOR AN ATS RANGING AND POSITION FIXING EXPERIMENT." JUN 67; GENERAL ELECTRIC, RESEARCH AND DEVELOPMENT CEN
TER, SCHENECTADY, N.Y.

COLORADO STATE UNIVERSITY
0059 SEE AUTHOR : REYNOLDS, D.W.

COLTON, F.V. "THE APPALACHIAN EDUCATION SATELLITE PROJECT." MAR 74, COLLEGE OF EDUCATION, UNIVERSITY OF KENTUCKY, JOURNAL ARTICLE *
0257
** AUDIOVISUAL INSTRUCTION, VOL. 19, NO. 3, PP. 6, 8-9, MAR 74***.

COMISSAO NACIONAL DE ATIVIDADES ESPACIAIS (CNAE)
0025 SEE AUTHOR : LUSIGNAN, B.B.

COMMITTEE ON SATELLITE COMMUNICATIONS.
0012 "FEDERAL RESEARCH AND DEVELOPMENT FOR SATELLITE COMMUNICATIONS." 1977, TECHNICAL REPORT.

COMMUNICATIONS RESEARCH CENTRE (CANADA)
0017 SEE AUTHOR : PONNAPPA, P.C.

COMMUNICATIONS RESEARCH CENTRE
0309 SEE AUTHOR : PONNAPPA, S.

COMMUNICATIONS RESEARCH CENTER.
0080 "HERMES/CTS CONSOLIDATED LIST OF PAPERS AND REPORTS." APR 79, COMMUNICATION RESEARCH CENTER (CANADA), OTTAWA, ONTARIO,
CANADA, BIBLIOGRAPHY.

COMPUER SCIENCES CORP.
0327 "OPLE EXPERIMENTATION SUMMARY", REPORT NO. 4031-19, NASA CONTRACT NO. NAS 5-11672, FEB. 1971.

COMSAT
0126 "COMSAT'S PROPOSAL FOR IMPLEMENTING SATELLITE COMMUNICATIONS IN ALASKA." JAN 69, COMSAT, PROPOSAL.

CONNOLLY, A.-J.
0693 "THE FORMATIVE PROCESS USED BY THE SATELLITE TECHNOLOGY DEMONSTRATION IN THE DEVELOPMENT OF TELEVISION PROGRAMMING FOR
JUNIOR HIGH SCHOOL STUDENTS. SATELLITE TECHNOLOGY DEMONSTRATION, TECHNICAL REPORT NUMBER 0210." 1975, FEDERATION OF ROCKY MOUNTAIN

CONRAD, T.O. SEE AUTHOR : VONBUN, F.O.
0906

CONRAD, T.O. SEE AUTHOR : VONBUN, F.O.
0907

CONRAD, T.O. SEE AUTHOR : VONBUN, F.O.
0870

CONTROL DATA CORP.
0442 "SELF-CONTAINED NAVIGATION EXPERIMENT." MINNEAPOLIS, MINN., EDINA SPACE AND DEFENSE SYSTEMS, JULY 1969.

CONVATH/GENERAL DYNAMICS CORP.
0290 SEE AUTHOR : FAGER, J. A.

COOMER, H.V. "PHOTOGRAPHS FROM METEOROLOGICAL SATELLITES 1A COLLECTION OF THE PICTURE OF THE MONTH SERIES FROM "MONTHLY WEATHER REVIEW",
JANUARY 1963 TO MAY 1967." JUN 67, NAVY WEATHER RESEARCH FACILITY, BUILDING 6-40, NAVAL AIR STATION, NORFOLK, VIRGINIA

CORP FOR PUBLIC BROADCASTING
0159 SEE AUTHOR : UNKNOWN

CORP. FOR PUBLIC BROADCASTING
0156 SEE AUTHOR : HINCHMAN, W.R.

CORP. FOR PUBLIC BROADCASTING
0231 SEE AUTHOR : MACY, JOHN W.

CORPORATION FOR PUBLIC BROADCASTING
0038 SEE AUTHOR : ROTH, E.-J.

CORPORATION FOR PUBLIC BROADCASTING
0155 SEE AUTHOR : MACY, J.W.

CORPORATION FOR PUBLIC BROADCASTING
0243 SEE AUTHOR : ROTH, E.-J.

CORRIGAN, J.P.
0400 "THE ATS VHF EXPERIMENT FOR AIRCRAFT COMMUNICATION." APRIL 1967. GODDARD SPACE FLIGHT CENTER, TECH. REPORT (NAS-1.

CORRIGAN, J.P.
0884 SEE AUTHOR : FRITZ, T.A.

CORRIGAN, J.P.
0591 "ATS-6 EXPERIMENT SUMMARY." NOV 1975, JOURNAL ARTICLE, 76A 17903.

COSTA, A.
0012 SEE AUTHOR : BYSTROM, J.W.

COTINGA PROJECT
0030 SEE AUTHOR : SWEET, M.M.

COVEY, H.D.
0750 "REMOTE PSYCHIATRIC AND PSYCHOLOGICAL SERVICES VIA COMMUNICATIONS TECHNOLOGY SATELLITE (CTS)." MAY 1975, UNIVERSITY OF WES
TERN ONTARIO, DEPARTMENT OF PSYCHIATRY, LONDON, ONTARIO, CANADA, PAPER, ED 108 591.

COULAN, B.
0567 "THE ATS-6: AMERICAN CASE STUDIES." DEC 1975, AGENCY FOR INTERNATIONAL DEVELOPMENT, JOURNAL ARTICLE.

COULAN, B.
0575 "A CASE STUDY OF THE ATS-6 HEALTH, EDUCATION AND TELECOMMUNICATIONS PROJECTS." AUG 1975, OFFICE OF EDUCATION AND HUMAN RES
OURCES, BUREAU FOR TECHNICAL ASSISTANCE, AGENCY FOR INTERNATIONAL DEVELOPMENT, TECHNICAL REPORT, ED RS ED 118 149.

CPAM, R.-S.
0111 SEE AUTHOR : VONDER HAAR, J.H.

CRANE, NORMA
0561 "CTS U.S. USER EXPERIMENTS, ASSOCIATED ORGANIZATIONS AND PERSONNEL." 24 AUG 1976, INDEX OF USERS.

CRAWFORD, W.R.
0405 "SAR - SATELLITE ALARM RESCUE ." U.S. NAVAL AIR TEST CENTER, PATUXENT RIVER, MD., SEPT. 1970 .

CRIMER, R.
0544 SEE AUTHOR : KAY, P.

CROMBIE, D.D.
0737 "LOWERING BARRIERS TO TELECOMMUNICATIONS GROWTH." NOVEMBER 1976, U.S. DEPARTMENT OF COMMERCE, OFFICE OF TELECOMMUNICATIONS
WASHINGTON, D.C., TECHNICAL REPORT.

CSC
0165 "PRELIMINARY REPORT: EXPERIMENTAL SATELLITE SYSTEM FOR ALASKA." AUG 70, GODDARD SPACE FLIGHT CENTER, PROG. REPT.

CULLEN, I.J.
0527 SEE AUTHOR : DOHNER, C.W.

CULLEN, I.J.
0515 SEE AUTHOR : DOHNER, C.W.

CULLEN, I.J.
0746 "EVALUATING STUDENT PERFORMANCE IN A DECENTRALIZED BASIC SCIENCE PROGRAM." JUNE 1976, JOURNAL ARTICLE, EJ 139 571.

CUMMINGS, W.D.
0083 "QUIET DAY MAGNETIC FIELD AT AIS-1." FEB 1971, UNIVERSITY OF CALIFORNIA AT LOS ANGELES, GRAMBLING COLLEGE, LOUISIANA,
JOURNAL ARTICLE, *** JOURNAL OF GEOPHYSICAL RESEARCH, VOL. 76, NO. 4, PP. 926-932, FEB 1971 ***.

CUMMINGS, W.D.
0085 SEE AUTHOR : COLEMAN, JR., P.J.

CUMMINGS, W.D.
0086 SEE AUTHOR : OLSON, W.P.

CUMIEL, AE DA SILVA
0325 "RESULTS OF MARITIME SATELLITE COMMUNICATIONS TESTS USING AIS-3", REPORT 277RC2 NETHERLANDS POSTAL AND TELECOMMUNICATIO
NS SERVICES, DR. MEYER LABORATORY, AUGUST 1971.

CUTTING, A.M.
0206 "PEACESAT-A REPORT ON THE PROGRESS OF AN EXPERIMENT IN INTERNATIONAL EDUCATIONAL COMMUNICATIONS." 1972; UNIV. OF THE S
OUTH PACIFIC, SUVA, FIJI.

DALC, J.B.
0621 "THE USE OF A SATELLITE HUMAN INTERACTION SYSTEM IN CONJUNCTION WITH A SATELLITE MEDIA DISTRIBUTION SYSTEM." 1975, FEDERA
TION OF ROCKY MOUNTAIN STATES, INC., DENVER, COLO., TECHNICAL REPORT, EDRS ED 115232.

DALE, J.B.
0693 SEE AUTHOR : CONNOLLY, A.J.

DARBY, M.
0763 "PROGRAMMING AS AN INSTRUMENT FOR COMMUNITY INVOLVEMENT: DESIGNING TOPICAL TELEVISION PROGRAMS FOR RURAL ADULT AUDIENCE
S. SATELLITE TECHNOLOGY DEMONSTRATION, TECHNICAL REPORT NUMBER SD3." FEDERATION OF ROCKY MOUNTAIN STATES, INC., 2400 WEST 26TH
ST., DENVER, COLO., TECHNICAL REPORT, EDRS ED 115232.

DAROSA, A.V.
0270 "MONTHLY PROGRESS REPORTS FOR ALASKA SATELLITE COMMUNICATIONS PROJECT." APR-JUN 1972, STANFORD UNIVERSITY, STAMFORD, CA
CALIFORNIA.

DART, U.G.
0850 "OBJECTIVE TROPICAL STORM PARAMETERS FROM SATELLITE CLOUD PATTERNS." 2 OCT 75, RESEARCH DIVISION, CONTROL DATA CORPORAT
ION, BOX 1249, MINNEAPOLIS, MN, 55440 TECHNICAL REPORT, MITS: AD-A 022650.

DAS, A.
0852 "THE PRESENT STATUS OF BROADCASTING SATELLITES." JUL 75, FEDERAL COMMUNICATIONS COMMISSION, 1919 M ST., N.W., WASHINGTON
M, D.C., 20554, MITS: PB-245-563, ORIGINATOR: FCC/OCE RST5-06

DAUGHERTY, D.
0915 "A SUMMATIVE EVALUATION OF TEACHING THE YOUNG HANDICAPPED CHILD: SPRING 1970. TECHNICAL REPORT NO. 24." NOV 70. RESOURCE
COORDINATING CENTER, UNIVERSITY OF KENTUCKY, LEXINGTON, KENTUCKY, TECHNICAL REPORT, ED 165 810.

DAVIES, K.
0590 "ATS-6-RADIO BEACON EXPERIMENT THE FIRST YEARS---IONOSPHERIC AND SATELLITE-TO-GROUND ELECTRONIC CONTENT." NOV 1975. JOURNAL
ARTICLE, 75A 17912.

DAVIES, K.
0705 "SOME EARLY RESULTS FROM THE ATS-6 RADIO BEACON EXPERIMENT." AUGUST 1975. NOAA ENVIRONMENTAL RESEARCH LABORATORIES, SPACE
ENVIRONMENT LABORATORY, BOULDER, COLORADO 80502. JOURNAL ARTICLE.

DAVIS, K.C.
0916 "ATS-6 MM-WAVE PROPAGATION EXPERIMENT FINAL REPORT ON SATELLITE-NORTHWEST PARTICIPATION IN THE ATS-6 MM-WAVE PROPAGATION
EXPERIMENT." SEP 76, SATELLITE-NORTHWEST LABORATORIES, P.O. BOX 999, RICHLAND, WASHINGTON, 99352, MITS: NT77-24335, NASA: NA
EXPERIMENT.

DAY, J.L.
0082 "BOOK REVIEW OF 131 'THE PRACTICE OF MASS COMMUNICATION: SOME LESSONS FROM RESEARCH' BY MAO, Y.V.-L., UNESCO PUBLICATION
M 1972; 123 'A GUIDE TO SATELLITE COMMUNICATION BY UNESCO (UNESCO PUBLICATION 1972); 131 'THE ROLE OF FILM IN DEVELOPMENT

DAY, J.W.B.
0456 SEE AUTHOR : STRICKLAND, J.L.

DAY, J.W.B.
0976 SEE AUTHOR : WRIGHT, D.L.

DE WINTER, P.J.
0958 SEE AUTHOR : DIJK, J.

DEES, J.W.
0696 "A MILLIMETER WAVE PROPAGATION EXPERIMENT FROM THE ATS-6 SPACECRAFT." MARCH, 1968, IEEE CONFERENCE, GROUP OF MICROWAVE THEOR
Y AND TECHNOLOGY, NEW YORK, NEW YORK, PAPER, M68-17924.

DEFOREST, S.L.
0088 "PLASMA CLOUDS IN THE MAGNETOSPHERE." JUN 1971, UNIVERSITY OF CALIFORNIA AT SAN DIEGO, LA JOLLA, CALIFORNIA, JOURNAL A
RTICLE, *** JOURNAL OF GEOPHYSICAL RESEARCH, VOL. 76, NO. 16, PP. 3587-3611, JUN 1971 ***.

DEFOREST, S.L.
0507 "POTENTIALS ON THE ATS-6 SATELLITE AND THEIR USE IN PLASMA STUDIES." UNIV. OF CALIF., S.D., 1970.

DEFOREST, S.L.
0925 SEE AUTHOR : GARRETT, M.B.

DEHM, G.L.
0470 "DATA ACQUISITION, REDUCTION AND ANALYSIS FOR THE ATS COMMUNICATION SYSTEM." WESTINGHOUSE ELECTRIC CORP. 1967.

DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE
 U076 SEE AUTHOR : HUPE, M.H.
 DEPARTMENT OF HEALTH, EDUCATION AND WELFARE
 U099 SEE AUTHOR : HUPE, M.H.
 DEPARTMENT OF HEALTH, EDUCATION AND WELFARE
 U153 SEE AUTHOR : MILLION
 DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE/STATE OF ALASKA EXPERIMENTS
 U164 SEE AUTHOR : MCCABE
 DEPT. OF ENERGY, MINES, AND RESOURCES - CANADA
 U313 SEE AUTHOR : CLASSEN, H.G.
 DEPT. OF SUPPLY
 U196 SEE AUTHOR : HOMERWOOD, M.I.
 DEPT. OF SUPPLY
 U208 SEE AUTHOR : HOMERWOOD, M.I.
 DEPT. OF SUPPLY
 U314 SEE AUTHOR : HOMERWOOD, M.I.
 DEUTSCHE BUNDESPOST
 U279 SEE AUTHOR : DIETRICH, E.O.
 DEZOUTE, O.J.
 U422 "VHF GROUND-TO-AIRCRAFT COMMUNICATION TESTS FOR AIR TRAFFIC CONTROL WITH FEDERAL AVIATION AGENCY PARTICIPATION." FAA.
 FEB. 1966.
 GIAMBRA, H.M.
 U020 "VORAC: A NEW TECHNOLOGY FOR INCREASING THE EFFECTIVENESS OF TELEVISION DISTRIBUTION NETWORKS: REPORT ON A FEASIBILITY
 STUDY OF A CENTRAL LIBRARY 'INTEGRATED MEDIA' SATELLITE DELIVERY SYSTEM." SEPT 1975, WESTINGHOUSE ELECTRIC CORPORATION, PRO
 DIETRICH, E.O.
 U279 "GROUND STATION STATUS." 1964, DEUTSCHE BUNDESPOST, REPUBLIC OF WEST GERMANY.
 GILK, J.
 U025 "ATS-6 SATELLITE 30 GHZ PROPAGATION MEASUREMENTS DURING HEAVY THUNDERSTORMS." APR 1977, JOURNAL ARTICLL, 77A 36307.
 GILK, J.
 U950 "ATS-6 EXPERIMENTS AT EINDHOVEN UNIVERSITY." OCT 1977, EINDHOVEN UNIVERSITY OF TECHNOLOGY, RADIO GRG., EINDHOVEN, THE
 NETHERLANDS. TECHNICAL REPORT, NTIS: N70-15339.
 JILLUM, C.H.
 U072 "BOOK REVIEW OF 'THE POLITICS AND TECHNOLOGY OF SATELLITE COMMUNICATIONS' BY GALLOWAY, J.F. ALEXINGTON BOOKS, 1972." NOV
 1973, UNIVERSITY OF MARYLAND, JOURNAL ARTICLE *** THE JOURNAL OF POLITICS, VOL. 35, NO. 4, PP. 1035-1036, NOV 1973 ***
 GIMMICK, S.
 U140 SEE AUTHOR : BUCKWAY, P.
 GIMMELMANN, P.
 U951 "ATTENUATION STATISTICS AT 30 GHZ, DERIVED FROM MEASUREMENTS WITH ATS-6 AND SIMULTANEOUS RADIO-METRIC OBSERVATIONS AT 11
 .4 GHZ." OCT 1977, DEUTSCHE BUNDESPOST RESEARCH INSTITUTE, FERNHELDTECHNISCHES ZENTRALAMT, DARMSTADT, GERMANY, TECHNICAL

UINTELMANN, F.
U963 "ANALYSIS OF SOME POLARIZATION EVENTS WHICH WERE MEASURED AT 30 GHz WITH AIS-6." OCT 1977, DEUTSCHE BUNDESPOST RESEARCH
INSTITUTE, FERNHELDTECHNISCHES ZENTRALAMT, DARMSTADT, GERMANY, TECHNICAL REPORT, NTIS: N78-15345.

UINTELMANN, F.
U970 SEE AUTHOR : PUCKER, F.

UPIELING, J.
U905 SEE AUTHOR : BARBIERE, D.

UISSANAYAKE, A.W.
U956 SEE AUTHOR : MCEMAN, M.J.

UISSANAYAKE, A.W.
U964 SEE AUTHOR : WATSON, P.A.

UISLER, A.S.
U810 SEE AUTHOR : BELEN, W.W.

UJA, M.
U944 SEE AUTHOR : KAT, P.

UOHNER, C.W.
U527 "EVALUATION OF SATELLITE COMMUNICATION FOR TEACHING BASIC SCIENCE AND CLINICAL MEDICINE." 21 JULY 1975, JOURNAL ARTICLE.

UOHNER, C.W.
U515 "AIS-6 SATELLITE EVALUATION." AUG 1975, OFFICE OF RESEARCH IN MEDICAL EDUCATION, SCHOOL OF MEDICINE SC-64, UNIVERSITY OF WA
SHINGTON, SEATTLE, WASHINGTON 98195, TECH. REPORT, PB-247 303.

UOHNER, C.W.
U746 SEE AUTHOR : CULLEN, T.J.

UOI, H.
U923 SEE AUTHOR : SUGURI, Y.

UOMM, B.R.
U675 "VETERANS ADMINISTRATION SATELLITE TRANSMITTED EXPERIMENTS IN BIOMEDICAL COMMUNICATIONS." 21-23 JULY 1975, AIAA CONFERENC
E ON COMMUNICATION SATELLITES FOR HEALTH/EDUCATION APPLICATIONS DENVER, COLORADO, PAPER, TSA 30034.

UONNELLY, R.F.
U895 "AIS OBSERVATIONS OF SUDDEN INCREASES OF TOTAL ELECTROM CONTENT INDUCED BY EUV AND X-RAY BURST OF SOLAR FLARES." SEP 75,
WAVE PROPAGATION LABORATORY, NOAA, ENVIRONMENTAL RESEARCH LABORATORY, BOULDER, COLORADO, 80302, TECHNICAL REPORT, NTIS: P

UOMOUGHE, P.L.
U833 "PROCEEDINGS OF THE JOINT UNITED STATES-CANADIAN EXPERIMENTS MEETING-COMMUNICATIONS TECHNOLOGY SATELLITE (HERMES). "SEP
1978, COMMUNICATIONS TECHNOLOGY SATELLITE (HERMES) JOINT EXPERIMENTS CONFERENCE, PROCEEDINGS.

UOMOUGHE, P.L.
U877 "COMMUNICATIONS TECHNOLOGY SATELLITE UNITED STATES USERS MEETING 822." APR 79, NATIONAL AERONAUTICS AND SPACE ADMINISTRA
TION, LEWIS RESEARCH CENTER, CLEVELAND, OHIO, 44135, INDEX OF USERS.

UOMOUGHE, P.L.
U879 "COMMUNICATIONS TECHNOLOGY SATELLITE-UNITED STATES EXPERIMENTS AND DISASTER COMMUNICATIONS APPLICATIONS." OCT 78, NATION
AL AERONAUTICS AND SPACE ADMINISTRATION, LEWIS RESEARCH CENTER, CLEVELAND, OHIO, 44135, TECHNICAL MEMORANDUM, NTIS: N79-2

DONOUGHE, P.L.
 0723 "CTS UNITED STATES USERS MEETING #15." AUG 76, PROGRESS REPORT.

 DONOUGHE, P.L.
 0555 "UNITED STATES SOCIETAL EXPERIMENTS VIA THE COMMUNICATIONS TECHNOLOGY SATELLITE." JUNE 1976, LEWIS RESEARCH CENTER, CLEVELAND, OHIO. 44135, TECH. MEMORANDUM, 76 21256.

 DONOUGHE, P.L.
 0562 "CTS UNITED STATES USERS MEETING #13." JAN 1976, NASA-LEWIS RESEARCH CENTER, CLEVELAND, OHIO 44135, PROGRESS REPORT.

 DONOUGHE, P.L.
 0563 "CTS UNITED STATES USERS MEETING #14." APRIL 1976, NASA-LEWIS RESEARCH CENTER, CLEVELAND, OHIO 44135, PROGRESS REPORT.

 DONOUGHE, P.L.
 0564 "CTS UNITED STATES USER MEETING #16." NOV 1976, NASA-LEWIS RESEARCH CENTER, CLEVELAND, OHIO 44135, PROGRESS REPORT.

 DONOUGHE, P.L.
 0565 "CTS UNITED STATES USER MEETING #17." FEB 1977, NASA-LEWIS RESEARCH CENTER, CLEVELAND, OHIO 44135, PROGRESS REPORT.

 DONOUGHE, P.L.
 0740 "CTS UNITED STATES EXPERIMENTS - A PROGRESS REPORT." OCTOBER 1976, LEWIS RESEARCH CENTER, CLEVELAND, OHIO 44135, TECHNICAL MEMORANDUM, NASA TM X-73510.

 DONOUGHE, P.L.
 0780 "CTS (HERMES) - UNITED STATES EXPERIMENTS AND OPERATION SUMMARY." DEC 1977, TECHNICAL MEMORANDUM.

 DONOUGHE, P.L.
 0793 "CTS UNITED STATES USERS MEETING #20." 7 MAR 1978, TECHNICAL REPORT.

 DONOHANU, HARRY
 0518 SEE AUTHOR : THOLE, JOHN M.

 DONOHANU, HARRY
 0804 "THE ATS-6 EXPERIENCE AND THE FUTURE OF BROADCAST SATELLITES." 1976, FAIRCHILD SPACE & ELECTRONICS CO., GERMANTOWN, MO. 1 TECHNICAL REPORT.

 DUMPHOND, M.R.
 0130 "WEATHER FACSIMILE (WEFAX) EXPERIMENT." 1966; NASA, GSFC, (NASA).

 DURY, C.M.
 0144 SEE AUTHOR : ALMOND, J.

 DUBOSE, J.F.
 0673 "VHF NAVIGATION EXPERIMENT." MAY 1971, TEXAS INSTRUMENTS INCORPORATED 13500 NORTH CENTRAL EXPRESSWAY DALLAS, TEXAS 75222, TECHNICAL REPORT, 71M 35770.

 DUKE UNIVERSITY MEDICAL CENTER
 0016 SEE AUTHOR : LESIEN, R.G.

DUNE UNIVERSITY MEDICAL CENTER
0055 SEE AUTHOR : O'FOGHUOHA, F

DUNE UNIVERSITY MEDICAL CENTER
0298 SEE AUTHOR : LESTER, R. G.

DUNCAN, B.C.
1009 SEE AUTHOR : LOVELESS, F.M., JR.

DUNCAN, R.A.
0849 "BIOMEDICAL COMMUNICATIONS EXPERIMENTS: SYSTEM EVALUATION." JAN 79. MITRE CORPORATION, MITREX DIVISION, 1020 DOLLEY MADISON BLVD., MCLEAN, VA, 22102, TECHNICAL REPORT, OTHER: PB-295-549.

DUNCAN, R.A. (ED.)
0932 "BIOMEDICAL COMMUNICATIONS EXPERIMENTS USING THE COMMUNICATIONS TECHNOLOGY SATELLITE: SYMPOSIUM PROCEEDINGS." DEC 70, IN
E MITRE CORPORATION, MITREX DIVISION, 1020 DOLLEY MADISON BLVD., MCLEAN, VIRGINIA, 22102, TECHNICAL REPORT, HTIS: PB 29555

DUNCAN, R.A., (ED.)
0849 "BIOMEDICAL COMMUNICATIONS EXPERIMENTS: EXECUTIVE SUMMARY." JAN 79. MITRE CORPORATION, MITREX DIVISION, 1020 DOLLEY MADISON BLVD., MCLEAN, VA, 22102, SUMMARY, ORIGINATOR: MTR-79000033, OTHER: PB 294 405.

DUNCOMBE, C.
0881 SEE AUTHOR : GOLAR, J.

DUNCOMBE, C.B.
0811 "TRANSPORTATION SYSTEMS CENTER/U.S. COAST GUARD L-BAND MARITIME SATELLITE TEST PROGRAM." JUN 1975. DDT, UNITED STATES COAST GUARD, CAMBRIDGE, MA, 02142. TECHNICAL REPORT.

DUNCOMBE, C.B.
0878 "RESULTS OF AEROSAT CHANNEL SIMULATION TESTS Q-M/PSM VOICE/DATA MODEM TSC NAMING MODERN.", U.S. DEPARTMENT OF TRANSPORTATION, TRANSPORTATION SYSTEMS CENTER, KENDALL SQUARE, CAMBRIDGE, MAINE, 02142, TECHNICAL REPORT, ORIGINATOR: FAA-MD-76-103

DUTTON, E.J.
0920 "EARTH SPACE ATTENUATION PREDICTIONS FOR GEOSTATIONARY SATELLITE LINKS IN THE U.S.A." OCT 70, U.S. DEPARTMENT OF COMMERCE, HTIA/ITS-3, 325 BROADWAY, BOULDER, COLORADO 80303, TECHNICAL REPORT, HTIS: PB 289841, ORIGINATOR: HTIA REPORT 70-10.

DUTRE, D.G.
0719 SEE AUTHOR : RESECH, R.G.

LASTON, R.L.
0617 "DISSEMINATION OF TIME AND FREQUENCY BY SATELLITE." OCT 1976, JOURNAL ARTICLE, 77A 10635.

LOBAUEW, F.
0111 "EXPERIMENTS WITH THE ATS-3 SATELLITE IN REGARD TO FUTURE APPLICATIONS OF NAVIGATIONAL SATELLITES FOR SHIPS." SEP 1969, INSTITUTE FOR SATELLITE ELECTRONICS, WEST GERMANY, TECH. REPT.

EDELMAN, E.A.
0789 "UTILIZATION OF NASA LEVINS MOBILE TERMINALS FOR THE HERMES SATELLITE." DEC 1977, TECHNICAL MEMORANDUM.

EGG
0003 SEE AUTHOR : GARCIA, M.M.

666
 U020 SEE AUTHOR : GARCIA, M.M.

 666, INC.
 0242 SEE AUTHOR : GARCIA, M.M.

 ERSTROM, P.A.
 0916 SEE AUTHOR : DAVIS, M.C.

 ELKINS, I.J.
 0499 "HORIZON STUDIES OF ATS-1 BEACON SIGNALS." USAF CAMBRIDGE RESEARCH LABS, BEDFORD, MASS.

 111011, J "LONG DISTANCE LIFE SAVER." OCT 1974; GENERAL ELECTRIC CO., RESEARCH AND DEVELOPMENT CENTER, SCHEMELIADY, NEW YORK.
 0299

 ENOLICH, M.M.
 0080 "USE OF A PATTERN RECOGNITION TECHNIQUE FOR DETERMINING CLOUD MOTIONS FROM SEQUENCES OF SATELLITE PHOTOGRAPHS." SEP 19
 70, STANFORD RESEARCH INSTITUTE, MENLO PARK, CALIFORNIA, JOURNAL ARTICLE *** JOURNAL OF APPLIED METEOROLOGY, VOL. 10, NO.

 ENDRES, D.L.
 0064 SEE AUTHOR : ISLEY, W.C.

 ENGE, F.J.
 0404 "APPLICATIONS OF OMEGA POSITION LOCATION EXPERIMENT TO MASS TRANSPORTATION." INSTITUTE OF NAVIGATION, N.Y., JUNE 1969 .

 ENGELS, P.D.
 0811 SEE AUTHOR : DUNLONBE, C.B.

 ENGELS, P.D.
 0810 "MARITIME COMMUNICATION EXPERIMENTS AND SEARCH-AND-RESCUE EVALUATIONS WITH THE NASA ATS-6 SATELLITE." MAY 1970, U.S. DEPA
 RTMENT OF TRANSPORTATION, TRANSPORTATION SYSTEMS CENTER, KENDALL SQUARE, CAMBRIDGE, MA, B2192, TECHNICAL REPORT, AD A055623.

 ENGLER, M.
 0600 "ON OBSERVING A SATELLITE TRANSMISSION IN APPALACHIA." MAY 1977, UDRI DAYTON, OHIO 45469, INFORMAL NOTES.

 ENGLER, M.A.
 0765 "COMPENDIUM OF APPLICATIONS TECHNOLOGY SATELLITE USER EXPERIMENTS, 1967-1973." AUG 1976, UNIVERSITY OF DAYTON RESEARCH IM
 STITUTE, DAYTON, OHIO 45469, TECHNICAL REPORT, 77X TO 237.

 ENGLER, M.A.
 0705 "CONTINUATION OF THE COMPENDIUM OF APPLICATIONS TECHNOLOGY SATELLITE AND COMMUNICATIONS TECHNOLOGY SATELLITE USER EXPER
 IMENTS 1967-1977 VOLUME I." MAY 1978, UNIVERSITY OF DAYTON, RESEARCH INSTITUTE, 300 COLLEGE PARK, DAYTON, OHIO, 45469, TECHNICAL

 ENGLER, M.A.
 0786 "CONTINUATION OF THE COMPENDIUM OF APPLICATIONS TECHNOLOGY SATELLITE AND COMMUNICATIONS TECHNOLOGY SATELLITE USER EXPER
 IMENTS 1967-1977 VOLUME II - ABSTRACTS." MAY 1978, UNIVERSITY OF DAYTON, RESEARCH INSTITUTE, 300 COLLEGE PARK, DAYTON, OHIO,

 ENGLER, M.A.
 0787 "CONTINUATION OF THE COMPENDIUM OF APPLICATIONS TECHNOLOGY SATELLITE AND COMMUNICATIONS TECHNOLOGY SATELLITE USER EXPER
 IMENTS 1967-1977 VOLUME II - USER FORM SURVEYS." MAY 1978, UNIVERSITY OF DAYTON, RESEARCH INSTITUTE, 300 COLLEGE PARK, DAYTON

ENGLES, P.O.
0603 SEE AUTHOR : GUINEIN, J.M.
ENVIRONMENTAL SCIENCE SERVICES ADMINISTRATION
0110 SEE AUTHOR : LEESE, J.A.
LITCHSON, M. M.
0940 SEE AUTHOR : WALKER, R. J.
EPICSON, R.F.
0851 SEE AUTHOR : WOOD, F.B.
EPICSON, R.F.
0945 SEE AUTHOR : WOOD, F.B.
ERLICK, E.M.
0127 "PROPOSED SATELLITE TRANSMISSION TEST TO ANCHORAGE, ALASKA." SEP 49, AMERICAN BROADCASTING COMPANIES, NEW YORK, NEW YORK, PROPOSAL.
0154
ERLICK, E.M.
0154 "PROPOSED SATELLITE TRANSMISSION TEST TO ANCHORAGE ALASKA." AUG 69; ABC, NEW YORK, NY.
ESMENSEN, S.
0502 SEE AUTHOR : MITTA, T.
EXXON CORP.
0293 SEE AUTHOR : LAROSA, R. M.
EXXON CORPORATION
0015 SEE AUTHOR : LAROSA, R.M.
FAA
0201 SEE AUTHOR : LUNDQUIST, G.E.
FAA
0320 "INVESTIGATION OF AIRBORNE VOR RECEIVER INTERFERENCE CAUSED BY SATCOM TRANSMISSIONS ABOARD THE AIRCRAFT", DATA REPORT NO. 2, FAA TEST AND EVALUATION DIVISION, PROJECT NO. 221-160-021, APRIL 1960.
FAA
"SATELLITE COMMUNICATIONS EXPERIMENTATION", DATA REPORT NO. 1, FAA TEST AND EVALUATION DIVISION, PROJECT NO. 221-160-02
N, SEPT. 1967.
FAA - SYSTEMS R&D SERVICE
0443 "ATS-1 FAA EXPERIMENTATION, INTERIM REPORT NO. 1." DEC. 1966-JAN. 1967.
FAGER, J. A.
0790 "COMMUNICATIONS SATELLITE FOR ALASKA AND THE MOUNTAIN STATES." AIAA PAPER 000 AIAA 3RD COMMUNICATIONS SATELLITE SYSTEMS CONFERENCE, NO 70-453, APR 1970 000.
FAIRCHILD INDUSTRIES.
0504 SEE AUTHOR : STAFF NASA & FAIRCHILD INDUSTRIES
FAIRCHILD INDUSTRIES.
0505 SEE AUTHOR : STAFF NASA & FAIRCHILD INDUSTRIES
FAIRCHILD INDUSTRIES.
0506 SEE AUTHOR : STAFF NASA & FAIRCHILD INDUSTRIES

FALLER, J.W.
0449 "HELICOPTER COMMUNICATIONS TEST PROGRAM PART 1. VHF COMMUNICATIONS VIA ATS-1 SATELLITE RELAY." AIR FORCE AVIONICS LAB,
WPAFB, OHIO. OCT. 1967.

FAMMIN, B.M.
0600 SEE AUTHOR : VOGEL, W.J.

FEDERATION ENGINEERING STAFF
0548 "DATA COLLECTION OPERATIONAL SUPPORT SYSTEM, PART 2." NOV 1975, FEDERATION OF ROCKY MOUNTAIN STATES, 2900 W. 26 AVENUE SUITE
F 3008, DENVER, COLORADO 80211, TECH. REPORT, TAN-22287.

FEINBERG, E.J.
0636 SEE AUTHOR : ALLEN, W.R.

FEINER, A.
0655 "THE ATS-6 HEALTH CARE EXPERIMENT AND AN APPROACH AS TO HOW TO PROCEED FROM HERE." JULY 75, AMERICAN INSTITUTE OF AERONAUTICS
AND ASTRONAUTICS, CONFERENCE ON COMMUNICATION SATELLITES FOR HEALTH/EDUCATION APPLICATIONS, DENVER, COLORADO, PAPER.

FEINER, ALBERT
0523 "HEALTH CARE AND EDUCATION: ON THE THRESHOLD OF SPACE." DEC 1974, JOURNAL ARTICLE.

FEINER, ALBERT
0626 "SOME POLICY ISSUES EMERGING FROM THE EDUCATIONAL SATELLITE COMMUNICATIONS DEMONSTRATION IN ALASKA." APR 1976, PRACTICAL
CONCEPTS INCORPORATED, WASHINGTON, D.C., PAPER, EONS CB 124122.

FELLSIE, D.
0517 "DETERMINATION OF THE TOTAL NUMBER OF ELECTRONS IN THE IONOSPHERE FROM THE FARADAY EFFECT WITH THE AID OF SIGNALS FROM
THE ATS-3 SATELLITE." EAST GERMANY. 1968.

FIALA, J.L.
0789 SEE AUTHOR : EDELMAN, E.A.

FIALA, J.L.
0790 SEE AUTHOR : JACKSON, M.D.

FILEP, R.I.
0690 "A SYNTHESIS OF THE FINAL REPORTS AND EVALUATIONS OF THE ATS-6 SATELLITE EXPERIMENTS IN HEALTH, EDUCATION, AND TELECOMMUNICATIONS." FEB. 1977, UNIVERSITY OF SOUTHERN CALIFORNIA, SYSTEMS 2600, P.O. BOX 28, REDONDO BEACH, CALIFORNIA 92277, TECHNICAL
UNIVERSITY PARK, LOS ANGELES, CAL., 90007, BIBLIOGRAPHY.

FILEP, R.I.
0796 "SATELLITES AND PUBLIC SERVICES: AN ANNOTATED BIBLIOGRAPHY AND ANALYSIS." JAN 1970, UNIVERSITY OF SOUTHERN CALIFORNIA, UMI
VERSITY PARK, LOS ANGELES, CAL., 90007, BIBLIOGRAPHY.

FILEP, R.I.
0812 "COMMUNICATION IN THE FAR NORTH." 1977, JOURNAL ARTICLE.

FILEP, R.I.
0272 "ANNOTATED BIBLIOGRAPHY ON COMMUNICATION SATELLITES FOR SOCIAL SERVICES: FOCUS ON USCS AND EVALUATION." AUG. 1975, UMI
UNIVERSITY OF SOUTHERN CALIFORNIA, LEARNING SYSTEMS CENTER, LOS ANGELES, CALIFORNIA.

FINCH, E.R.
0074 "THE UNITED NATIONS AND EARTH RESOURCES SATELLITE." JAN 1973, JOURNAL ARTICLE *** INTERNATIONAL ALUTER, VOL. 7, NO. 1,
PP. 154-176, JAN 1973.

FIRM, D.J.
UN48 "PROGRESS AND GOALS FOR AERONAUTICAL APPLICATIONS OF SPACE TECHNOLOGY." GENERAL ELECTRIC CO., PHIL., PA. MISSILE AND SP
ACC DIV. SEPT. 1970.

FISHER, A.U.
U799 "C.T.S./PROJECT IRON STAR." APR 1970, ALBERTA NATIVE COMMUNICATIONS SOCIETY, EDMONTON, ALBERTA, CANADA, TECHNICAL REPORT.

FISHER, L.C.
U617 SEE AUTHOR : EASON, R.L.
FITZPATRICK, J.L.
U619 "FOLLOW-UP STUDIES OF THE APPALCHIAN EDUCATION SATELLITE PROJECT EXPERIMENTAL PHASE." JUL 1977, RESOURCE COORDINATING CEN
TER, UNIVERSITY OF KENTUCKY, LEXINGTON, KENTUCKY, TECHNICAL REPORT, ED 198 312.

FLANDERS, A.F.
USS9 "HYDROLOGIC DATA COLLECTION VIA GEOSTATIONARY SATELLITE." JAN 1971, JOURNAL ARTICLE, 72A 22315.

FLORIDA STATE UNIVERSITY
U191 SEE AUTHOR : GANSTANG, MICHAEL

FOLEY, A.E.
U411 SEE AUTHOR : DUNCOMBE, C.B.

FOOTE, D.
U826 SEE AUTHOR : BLOCH, C.

FOOTE, D.
1001 "TELEMEDICINE: HEALTH CARE FOR ISOLATED AREA." JAN 1977, AGENCY FOR INTERNATIONAL DEVELOPMENT (AID), WASHING
TON, D.C., BUREAU FOR TECHNICAL ASSISTANCE, JOURNAL ARTICLE, ERIC: ED152250.

FOOTE, D.R.
U852 SEE AUTHOR : KREINER, O.

FOOTE, D.R.
U579 "TELEMEDICINE IN ALASKA: THE ATS-6 SATELLITE BIOLOGICAL DEMONSTRATION." FEB 1976, INSTITUTE FOR COMMUNICATION RESEARC
H, STANFORD UNIVERSITY, TECHNICAL REPORT, ED 119 675.

FOOTE, D.R.
U832 SEE AUTHOR : FILIP, R.T.

FOOTE, D.R.
U836 "SATELLITE COMMUNICATIONS FOR RURAL HEALTH CARE IN ALASKA." 1977, JOURNAL ARTICLE, 041-02981.

FOOTE, D.R.
U567 SEE AUTHOR : COMAN, D.

FOOTE, D.R.
U575 SEE AUTHOR : COMAN, D.

FOOTE, D.M.
U762 SEE AUTHOR : MARBLE, M.H.

FORBES, M.E.
0950 SEE AUTHOR : ORVIN, J.M.

FOX, P.
0944 SEE AUTHOR : KAY, P.

FRANKLIN, C.A.
0772 SEE AUTHOR : ALMOND, J.

FREEMAN, J.J.
0410 "ON THE VARIETY OF PARTICLE PHENOMENA DISCERNIBLE AT THE GEOSTATIONARY ORBIT VIA THE ATS-1 SATELLITE." RICE UNIV., HOUSTON, TEXAS. 1968.

FREEMAN, J.R.
0938 SEE AUTHOR : BRAMBLE, W.J.

FREEMAN, M.G.
0938 "EXPERIMENTAL DIRECT BROADCAST RECEPTION OF 12 GHZ TELEVISION SIGNALS FROM THE CANADIAN COMMUNICATIONS TECHNOLOGY SATELLITE." MAY 1977, JOURNAL ARTICLE.

FRENCH, R.F.G.
0969 "OPERATIONAL CHARACTERISTICS OF THE ATS-6 EXPERIMENT USING THE MARLESHAM EARTH STATION." POST OFFICE RESEARCH CENTRE, MARLESHAM HEATH, IPSWICH, UK. TECHNICAL REPORT, NTIS: N70-15356.

FRENCH, R.F.G.
0971 SEE AUTHOR : TURNER, D.J.W.

FRENETTE, C.
0731 "SATELLITE AND STAFF TRAINING." JUNE 1976, EDUCATIONAL FEASIBILITY UNIT, PUBLIC SERVICE COMMISSION, OTTAWA, ONTARIO, CANADA. PAPER.

FREY, H.L.
0767 SEE AUTHOR : BRISKEN, A.F.

FREY, R.L.
0631 SEE AUTHOR : BRISKEN, A.F.

FRIMAN, E.
0835 "THE NEW AGE OF MEDICAL TELEVISION NETWORKS." MAY 1977, JOURNAL ARTICLE.

FRITZ, R.B.
0895 SEE AUTHOR : DONNELLY, R.F.

FRITZ, T.A.
0764 "SIGNIFICANT INITIAL RESULTS FROM THE ENVIRONMENTAL MEASUREMENTS EXPERIMENT ON ATS-6." DECEMBER 1977, NASA/ESFC, GREENBELT, MD. TECHNICAL REPORT.

FRITZ, T.A.
0286 "ATS-6 NOAA LOW ENERGY PROTON EXPERIMENT." NOVEMBER 1975, SPACE ENVIRONMENT LAB, ENVIRONMENTAL RESEARCH LABS, NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION, BOULDER, CO. JOURNAL ARTICLE.

FRITZ, R.B.
0590 SEE AUTHOR : DAVIES, M.

FRITZ, R.B.
0705 SEE AUTHOR : DAVIES, M.

FRUMIN, A. V.
0540

"THE INTERNATIONAL AGE IN SPACE." OCT 74, NASA, WASHINGTON, D.C., JOURNAL ARTICLE, 75A 25714.

FUJITA, T. T.
0301
OF GEOPHYSICAL SCIENCES, CHICAGO, ILLINOIS.

"DETERMINATION OF MASS OUTFLOW FROM A THUNDERSTORM COMPLEX USING ATS-3 PICTURES." APR 1969; UNIVERSITY OF CHICAGO, DEPT

FUJITA, T. T.
0304

"USE OF ATS PICTURES IN HURRICANE MODIFICATION." AUG 1972; UNIV. OF CHICAGO, ILLINOIS.

FUJITA, T. T.
0305
RES."

"IN- AND OUTFLOW FIELD OF HURRICANE DEBBIE AS REVEALED BY ECHO AND CLOUD VELOCITIES FROM AIRBORNE RADAR AND ATS-3 PICTU
DEC 1969, DEPT. OF GEOPHYSICAL SCIENCES, UNIV. OF CHICAGO, NATIONAL HURRICANE RESEARCH LABORATORY, MIAMI, FLORIDA.

FUJITA, T. T.
0422
OF CHICAGO.

"PRESENT STATUS OF CLOUD VELOCITY COMPUTATIONS FROM THE ATS-1 AND ATS-3 SATELLITES." DEPT. OF GEOPHYSICAL SCIENCE, UNIV
MAY 1968.

FUJITA, T. T.
0453

"AIRCRAFT, SPACECRAFT, SATELLITE AND RADAR OBSERVATIONS OF HURRICANE GLADYS, 1968." CHICAGO UNIV. MAY 1970.

FUJITA, T. T.
0504

"THE LUBBOCK TORNADOES: A STUDY OF SUCTION SPOTS." UNIV. OF CHICAGO, AUGUST 1970.

FUJITA, T. T.
0667
-10316.

"USE OF ATS PICTURES IN HURRICANE MODIFICATION." AUG. 1972, CHICAGO UNIVERSITY CHICAGO, ILLINOIS., TECHNICAL REPORT, COM-73

FUJITA, T. T.
0691
OIS., RESEARCH PAPER, PB-193 717.

"LUBBOCK TORNADOES OF 11 MAY 1970." JULY 1970, UNIVERSITY OF CHICAGO, DEPARTMENT OF THE GEOPHYSICAL SCIENCES, CHICAGO, ILLIN

FUJITA, T. T.
0109
LOUIS UNIV.,

"A STUDY OF MESOSCALE CLOUD MOTIONS COMPUTED FROM ATS-1 AND TERRESTRIAL PHOTOGRAPHS." MAR 1968, UNIV. OF CHICAGO, ST.
TECH. REPT., SMRP RESEARCH PAPER NO. 80 (ENVIRONMENTAL SCIENCE SERVICE ADMINISTRATION).

FUJITA, T. T.
0230

"LETTER REGARDING TORNADO RESEARCH." APR 68; UNIV. OF CHICAGO, DEPT. OF GEOPHYSICAL SCIENCES, CHICAGO, ILLINOIS.

FUJITA, T. T.
0507

"SATELLITE-TRACKED CUMULUS VELOCITIES." APR 1975, JOURNAL ARTICLE, 75A 20701.

GARY, D. C.
0069

"ATS-3 SATELLITE-DERIVED LOW-LEVEL WINDS: A PROVISIONAL CLIMATOLOGY." MAR 1973, WESS SATELLITE FIELD SERVICES STATION
MIAMI, FLORIDA, JOURNAL ARTICLE, *** JOURNAL OF APPLIED METEOROLOGY VOL 12, PP 1054-1061, SEP 1973 ***.

GABY, U.C.
0542 "ATLANTIC TROPICAL CYCLONE CLASSIFICATIONS FOR 1974." APR 1975, MISS SAUTELLE FIELD SERVICE STATION, MOA, MIAMI, FL. TECH.
MEMORANDUM, COM-75-10676, MESS 68.

GALANE, IRMA B.
0847 "FCC PARTICIPATION IN THE JOINT U.S.-CANADIAN COMMUNICATIONS TECHNOLOGY SATELLITE EXPERIMENT." FEB 79, RESEARCH AND STA
BOARD DIVISION, OFFICE OF CHIEF ENGINEER, FEDERAL COMMUNICATIONS COMMISSION, WASHINGTON, D.C., 20554, TECHNICAL REPORT, N

GALLOWAY JR., H.L.
0896 "SATELLITE INSTRUCTIONAL TELEVISION EXPERIMENT (SITE) REPORTS FROM THE NASA RESIDENT REPRESENTATIVE IN INDIA." MAY 76,
NASA, GODDARD SPACE FLIGHT CENTER, GREENBELT, MARYLAND, 20771, TECHNICAL MEMORANDUM, NTIS: N76-31378, NASA: NASA-TM-X-7419

GARCIA, M.M.
0003 "TEST PLAN FOR A SATELLITE COMMUNICATIONS NETWORK TO SUPPORT LASL'S FALL ROCKET PROGRAM IN THE PACIFIC AREA." AUG 1972,
EGEG, ALBUQUERQUE DIVISION, DESCRIPTION OF PLANNED EXPERIMENT, OPERATION PICAPOSTE.

GARCIA, M.M.
0020 "AIRBORNE SATELLITE COMMUNICATIONS DURING AURORA STUDIES." APR 1971, EGEG, ALBUQUERQUE DIVISION, SERVICES AND SYSTEMS
GROUP TECH. REPT. EGG 1103-3011 (AL-564), CONTRACT NO. AT (29-11)-1103.

GARCIA, M.M.
0242 "EXECUTIVE REPORT ON 'AIRBORNE SATELLITE COMMUNICATIONS DURING AURORA STUDIES'." JAN 72, ALBUQUERQUE DIVISION, SERVIC
ES AND SYSTEMS GROUP, EGEG, INC., ALBUQUERQUE, NEW MEXICO, TECH. MEMO. (AEC).

GARG, S.C.
0983 SEE AUTHOR : PANT, M.

GARRETT, H.B.
0925 "MODELING OF THE GEOSYNCHRONOUS ORBIT PLASMA ENVIRONMENT-PART 2. ATS-5 AND ATS-6 STATISTICAL DATA." 30 NOV 78, SPACE PH
YSICS DIVISION, AIR FORCE GEOPHYSICS LAB, HANSCOM AFB, MA, 01731, TECHNICAL REPORT, NTIS: N79-25637.

GARSTANG, M.
0869 SEE AUTHOR : LASLOR, M.E.

GARSTANG, MICHAEL
0191 "A REQUEST TO NASA FOR USE OF ATS-C IN SUPPORT OF THE BARBADOS METEOROLOGICAL AND OCEANOGRAPHIC EXPERIMENT." SEP 67: F
50, DEPT OF OCEANOGRAPHY, TALLAHASSEE, FLORIDA.

GAFFIELD, A.G.
1006 "SYSTEM DESIGN FOR THE DIGITALLY IMPLEMENTED COMMUNICATIONS EXPERIMENT (DICE)." JUNE 1977, COMSAT LABORATORIES, TECHNIC
AL MEMORANDUM, COMSAT LABORATORY NO. 177CLN15.

GATTERER, L.E.
0413 SEE AUTHOR : JESPENSEN, J.L.

GATTERER, L.E.
0019 SEE AUTHOR : HANSON, D.W.

GATTERER, L.L.
0250 SEE AUTHOR : HANSON, D.W.

GATTERER, L.L.
0420 "WORLD-WIDE CLOCK SYNCHRONIZATION USING A SYNCHRONOUS SATELLITE." NBS BOULDER, COLORADO. JUNE 1968.

GENERAL DYNAMICS CONVAIR
 0251 "EXECUTIVE SUMMARY OF 'AN EXPERIMENT WITH VHF SATELLITE AND HF-SSB COMMUNICATIONS FOR DATA COLLECTION FROM OCEAN DATA S
 TATIONS (BUOYS)'." APR 69, GENERAL DYNAMICS CONVAIR, TECH. MEMO.

GENERAL ELECTRIC COMPANY
 0015 SEE AUTHOR : LAROSA, R.M.
 GENERAL ELECTRIC COMPANY
 0023 SEE AUTHOR : ANDERSON, R.E.
 GENERAL ELECTRIC CO.
 0037 SEE AUTHOR : ANDERSON, R.E.
 GENERAL ELECTRIC CO.
 0101 SEE AUTHOR : ANDERSON, R.E.
 GENERAL ELECTRIC CO.
 0115 SEE AUTHOR : ANDERSON, R.E.
 GENERAL ELECTRIC COMPANY
 0116 SEE AUTHOR : ANDERSON, R.E.
 GENERAL ELECTRIC COMPANY
 0117 SEE AUTHOR : ANDERSON, R.E.
 GENERAL ELECTRIC
 0233 SEE AUTHOR : UNKNOWN
 GENERAL ELECTRIC
 0234 SEE AUTHOR : ANDERSON, R.E.
 GENERAL ELECTRIC
 0235 SEE AUTHOR : BRISKEN, AXEL F.
 GENERAL ELECTRIC
 0236 SEE AUTHOR : ANDERSON, R.E.
 GENERAL ELECTRIC
 0239 SEE AUTHOR : COLLINS, L.A.
 GENERAL ELECTRIC AND EXXON CORP.
 0292 SEE AUTHOR : ANDERSON, R.E.
 GENERAL ELECTRIC CO.
 0299 SEE AUTHOR : ELLIOTT, J
 GERMANY
 0229 SEE AUTHOR : MAYER, MAX
 GERMANY
 0300 SEE AUTHOR : GOEBEL, W.

GERTRUDE, H.M.
 0602 "SATELLITE AND RADAR ANALYSIS OF MESOSCALE WEATHER SYSTEMS." FEB 75, DIVISION OF ATMOSPHERIC SCIENCE, ROSENTHAL SCHOOL
 OF MARINE AND ATMOSPHERIC SCIENCE, UNIVERSITY OF MIAMI, CORAL GABLES, FLORIDA, 33129, TECHNICAL REPORT, OTHER: ADA019311.

GERTRUDE, H.M.
 0915 SEE AUTHOR : ALOUGH

GILKINSON, R.L. (EDITOR)
 0927 "REPORTS ON BIOMEDICAL COMMUNICATIONS EXPERIMENTS VIA SATELLITE." SEPT 79, NATIONAL LIBRARY OF MEDICINE NEWS, 8600 ROCK
 VILLE PIKE, BETHESDA, MARYLAND 20209, JOURNAL ARTICLE, BIOLOGY.

GIORGIO, F. SEE AUTHOR : MCCLURE, R.B.
0616

GIVENS, J. SEE AUTHOR : HOEHN, R.E.
0783

GLOSSIP, G. "ATS III SATELLITE EXPERIMENTS, PROVISIONAL PROPOSALS." APR 68; BOARD OF TRADE, CIVIL AVIATION DEPT., NATIONAL AIR TRA
0195 FETIC CONTROL SERVICES, LONDON, ENGLAND.

GOODSHALL, F.A. SEE AUTHOR : LEESE, J.A.
0110

GOEBEL, W. SEE AUTHOR : EDBAUER, F.
0110

GOEBEL, W. "UTILIZATION OF SIMPLE OMNIDIRECTIONAL VHF-ANTENNAE ON BOARD SHIPS FOR SATELLITE RECEPTION, ELIMINATING THE MULTI-PATH
0300 EFFECTS THROUGH A DIVERSITY SYSTEM." NOV 1971; DEUTSCHE LUFT-UND RAUMFAHRT, GERMANY.

GOEBEL, W. "PARTICIPATION IN THE EXPERIMENTS WITH THE U.S. NAVIGATION SATELLITE ATS- 3." JUNE, 1968 .
0401

GOEBEL, W. SEE AUTHOR : SCHRIK, K.W.
0431

GOLAB, J. "PERFORMANCE OF A Q-M/PSK DATA MODEM OPERATING IN A VOICE AND DATA MODE THROUGH THE ATS-6 SATELLITE." FEB 78, U.S. DEPA
0881 RIMENT OF TRANSPORTATION, TRANSPORTATION SYSTEMS CENTER, KENDALL SQUARE, CAMBRIDGE, MAINE, 02142, TECHNICAL REPORT, ORIGIN

GOLAB, J.S. SEE AUTHOR : MILNER, P.
0779

GOLDEN, D.A. SEE AUTHOR : ALMOND, J.
0144

GOLDMAN, F.S. SEE AUTHOR : BLANK, H.A.
0483

GOLDEN, F.S. SEE AUTHOR : SESSIONS, W.B.
0922

GOLDSTEIN, D. SEE AUTHOR : BRAMBLE, W.J.
0743

GOLFIN, M.G. SEE AUTHOR : HOWELL, R.G.
0961

GOODALL, R. SEE AUTHOR : SPAIN, P.
0947

GOODING, L.A. SEE AUTHOR : ORVIN, J.M.
0950

GOODMAN, J.M. "JMF SCINTILLATION CHARACTERISTICS AS OBSERVED FROM NEFLAVIK, ICELAND-PRELIMINARY REPORT." 28 FEB 78, NAVAL RESEARCH LA
0873 BORATORY, WASHINGTON, D.C., 20375, TECHNICAL REPORT, ORIGINATOR: NRL REPORT 8160, OTHER: ADA055760.

GOULD, R.
U15D

"PRELIMINARY REPORT ON TRANSCONTINENTAL TELEVISION." OCT 69; UNKNOWN.

GOWARD, LCDR R.F.

U467 SEE AUTHOR : MEMPTON, CAPT. G.F.

GRAVEL, M.

U168 "NOTES ON A PROPOSAL BY SEN. GRAVEL TO ENTER COOPERATIVE VENTURE WITH CANADA FOR ALASKA SATELLITE COMMUNICATIONS." 1970
U.S. SENATE, WASHINGTON, D.C., INFORMAL NOTES.

GRAYSON, L.P.

U574 "EDUCATION SATELLITES: THE AFS-6 EXPERIMENTS." OCT 1974, NATIONAL INSTITUTE OF EDUCATION, WASHINGTON, D.C., JOURNAL ARTICLE

GRAYSON, L.P.

U619 "EDUCATIONAL SATELLITES - A GOAL OR GAOL----SOCIAL AND CULTURAL CONSEQUENCES." JOURNAL ARTICLE, 76A 30904.

GRAVES, J. W.

U450 "SOLAR EFFECTS ON VHF COMMUNICATIONS BETWEEN A SYNCHRONOUS SATELLITE RELAY AND EARTH GROUND STATIONS." NASA-GSFC. APR. 1969.

GREEN, D.

U708 "PROJECT INTERCHANGE: PHASE I AND II." NOVEMBER 1976, PROJECT INTERCHANGE, MENLO, CALIFORNIA 94025, PROGRESS REPORT.

GPEENBERG, E.

U222 SEE AUTHOR : MORGAN, R.P.

GREGORY, D.L.

U097 SEE AUTHOR : WOODCOCK, G.R.

GRIFFIN, C.G.

U571 "RAINFALL ESTIMATION FROM GEOSYNCHRONOUS SATELLITE IMAGERY DURING DAYLIGHT HOURS." FEB 1976, NATIONAL OCEANIC AND
ATMOSPHERIC ADMINISTRATION ENVIRONMENTAL RESEARCH LABORATORIES, BOULDER, COLO., TECHNICAL REPORT.

GROSH, R.C.

U660 "CLOUD PHOTOGRAPHS FROM SATELLITE AS A HYDROLOGICAL TOOL IN REMOTE TROPICAL REGIONS." WISCONSIN UNIVERSITY MADISON, WISC
ONLIN, TECHNICAL MEMORANDUM, 72M 27649.

GROSSI, M.D.

U981 SEE AUTHOR : MICHELINI, R.D.

GRUMB, H.M.

U590 SEE AUTHOR : DAVIES, M.

GRUMB, H.M.

U705 SEE AUTHOR : DAVIES, M.

GUERIN, Y.

U844 SEE AUTHOR : BROWN, D.L.

GUILD, P.D.

U744 SEE AUTHOR : HUDSON, M.E.

GULLIFORD, M.L.
0820 SEE AUTHOR : DIAMBRA, M.M.

GUPTA, S.C.
0983 SEE AUTHOR : PANT, M.

GURSKI, G.S.
0879 SEE AUTHOR : DONOUGHE, P.L.

GUWERN, J.M.
0683 "MARITIME SAFETY COMMUNICATION EXPERIMENTS WITH THE ATS-6 SATELLITE." OCT. 1975. ELECTRONIC AND AEROSPACE SYSTEMS CONVENTION, WASHINGTON, D.C. PAPER, 76A 40647.

HADFIELD, R. G.
0787 SEE AUTHOR : BLACHMER, R. H.

HADFIELD, R.G.
0107 SEE AUTHOR : SEREDRENY, S.M.

HAGEBOECK, M.
0578 SEE AUTHOR : POPPER, R.

HAGEN, B.
0029 "SCOMB-1: A SATELLITE COMMUNICATION OCEANOGRAPHIC AND METEOROLOGICAL BODY." FEB 1971, ROYAL NORWEGIAN COUNCIL FOR SCIENTIFIC AND INDUSTRIAL RESEARCH (INTF), SPACE ACTIVITY DIVISION, OSLO, TECH. REPT.

HAGEN, B.
0247 "EXECUTIVE SUMMARY OF 'SCOMB-1, A SATELLITE COMMUNICATION OCEANOGRAPHIC AND METEOROLOGICAL BODY.'" FEB. 71, ROYAL NORWEGIAN COUNCIL FOR SCIENTIFIC AND INDUSTRIAL RESEARCH, OSLO, NORWAY, TECH. MEMO.

HAJELA, D.P.
0874 "IMPROVED PROCEDURES FOR THE RECOVERY OF 5 DEGREE MEAN GRAVITY ANOMALIES FROM ATS-6/GEOS-3 SATELLITE TO SATELLITE RANGE RATE OBSERVATIONS USING LEAST SQUARES COLLOCATION." SEPT 78, DEPARTMENT OF GEODETIC SCIENCE, THE OHIO STATE UNIVERSITY, 1

HALL, A.R.
0192 "NASA/ESSA WEFAX EXPERIMENT EVALUATION REPORT ATS-1." MAY 67, ALLIED RESEARCH ASSOCIATES, CONCORD, MASS, TR NO. 3, NAS 5-10204, INASAT.

HALL, A.R.
0673 SEE AUTHOR : BERRY, L.

HALL, U.J.
0080 SEE AUTHOR : ENDLICH, R.M.

HALL, F.
0130 SEE AUTHOR : DRUMMOND, R.R.

HAMILTON, M. F.
0205 SEE AUTHOR : HANSON, D. W.

HAMILTON, M.F.
0019 SEE AUTHOR : HANSON, D.W.

HAMILTON, M.F.
0047 SEE AUTHOR : HANSON, D.W.

HAMILTON, M.F.
0250 SEE AUTHOR : HANSON, D.W.

HAMMETT & EDISON CONSULTANTS

0154 SEE AUTHOR : TEMPLETON, LAWRENCE W.

HANAS, O.J.

0002 "L-BAND ATS-5-ORION-S.S. MANHATTAN MARINE NAVIGATION AND COMMUNICATION EXPERIMENT." JUN 1970, APPLIED INFORMATION INDUSTRIES, MORRISTOWN, N.J., FINAL TECH. REPT., CONTRACT NO. NAS 12-2260, (NASA, ELECTRONIC RESEARCH CENTER, CAMBRIDGE, MASSAC

HANAS, O.J.

0039 SEE AUTHOR : BARNLA, J.D.

HANAS, O.J.

0250 "EXECUTIVE SUMMARY OF 'L-BAND ATS-5-ORION-S.S. MANHATTAN MARINE NAVIGATION AND COMMUNICATION EXPERIMENTS'." JUN 70, APPLIED INFORMATION INDUSTRIES, MORRISTOWN, NEW JERSEY, TECH. MEMO. (NASA).

HANAS, O.J.

0261 SEE AUTHOR : BARNLA, J.D.

HANAS, O.J.

0611 "NAVIGATION AND COMMUNICATION EXPERIMENT AT L-BAND ON BOARD S.S. MANHATTAN USING ATS-5 SATELLITE." OCT 1970, PAPER, 71A 100 16.

HANLEY, A.

0210 "WELLINGTON POLYTECHNIC SATELLITE COMMUNICATION PROJECT INTERIM REPORT." OCT 72; WELLINGTON POLYTECHNIC, WELLINGTON, NEW ZEALAND.

HANLEY, ANTHONY

0210 "EXPERIMENTAL SATELLITE TELECOMMUNICATIONS NETWORKS IN THE PACIFIC HEMISPHERE." AUG 74; WELLINGTON POLYTECHNIC, SCHOOL OF PHYSICS ELECTRONICS TELECOMMUNICATIONS AND ELECTRICAL ENGINEERING, WELLINGTON, NEW ZEALAND.

HANSON, D. W.

0205 "SATELLITE BROADCASTING OF NAV SIGNALS." SEP 74; NATIONAL BUREAU OF STANDARDS, BOULDER, COLORADO, JOURNAL ARTICLE *** IEEE TRANSACTIONS, VOL AES-10, NO 5, PP 562-573, SEP 74 ***.

HANSON, D.W.

0019 "THE NBS FREQUENCY AND TIME SATELLITE EXPERIMENT USING ATS-3." NOV 1971, NATIONAL BUREAU OF STANDARDS, FREQUENCY AND TIME DISSEMINATION RESEARCH STATION, BOULDER, COLORADO, PART OF THE PROCEEDINGS OF THE THIRD ANNUAL DEPARTMENT OF DEFENSE PRE

HANSON, D.W.

0047 "TIME AND FREQUENCY BROADCAST EXPERIMENTS FROM THE ATS-3 SATELLITE." NOV 1973, NATIONAL BUREAU OF STANDARDS, TIME AND FREQUENCY DIVISION, INSTITUTE FOR BASIC STANDARDS, BOULDER, COLORADO, TECH. REPT. NO. 645, (U.S. DEPT. OF COMMERCE).

HANSON, D.W.

0199 "PROPOSAL FOR USE OF THE ATS-3 VHF TRANSPONDER." SEP 70; US DEPT OF COMMERCE, NBS, WASHINGTON, D.C.

HANSON, D.W.

0200 "PROPOSAL TO EXTEND THE NBS TIME AND FREQUENCY EXPERIMENT USING THE ATS-3 VHF TRANSPONDER." JUN 72; US DEPT. OF COMMERCE, NBS, WASHINGTON, D.C.

HANSON, D.W.

0250 "EXECUTIVE SUMMARY OF 'NBS FREQUENCY AND TIME SATELLITE EXPERIMENT'." OCT 71, NATIONAL BUREAU OF STANDARDS, TECH. MEMO

HANSON, D.-M.
0617 SEE AUTHOR : EASTON, R.L.

HANSON, M.
0495 SEE AUTHOR : VONDER HAAR, I.-M.

HARAKA, M.
0598 SEE AUTHOR : YAMAMOTO, M.

HARDING, L.
0817 "USER RATINGS OF INSTRUCTIONAL ACTIVITIES: ELEMENTARY CAREER EDUCATION, SUMMER 1974." JUL 1975, RESOURCES COORDINATING CENTER, UNIVERSITY OF KENTUCKY, LEXINGTON, KENTUCKY, TECHNICAL REPORT, ED 114 065.

MARINARAN, T. A.
0656 "TECHNIQUES AND APPLICATIONS OF REMOTE SENSING IN INDIA." JUNE 74, PAPER, 75A 22530.

MARQUES, G.-G.
0982 SEE AUTHOR : BROWN III, W.E.

MARQUES, G.-G.
0607 SEE AUTHOR : BROWN III, W.E.

HARPER, E. LEE
0509 SEE AUTHOR : BOOR, JOHN L.

HASLER, A.F.
0550 "WIND ESTIMATES FROM CLOUD MOTIONS-PHASE 1 OF AN IN SITU AIRCRAFT VERIFICATION EXPERIMENT." JAN 1976, JOURNAL ARTICLE, 76A 22656.

HASLER, A.F.
0599 SEE AUTHOR : SMITH, C.L.

HAVORTH, D.P.
0964 SEE AUTHOR : WATSON, P.A.

HAYES-HULL, M.
0603 "ETHNIC MINORITIES AND TELECOMMUNICATIONS." MARCH 1975, PAPER, ED 103 927.

HAYKIN, S.S.
0739 SEE AUTHOR : TAYLOR, D.P.

HAYKIN, S.S.
0803 SEE AUTHOR : TAYLOR, D.P.

HECHT, M.A.
0815 "THE DEVELOPMENT OF A CHRONOLOGY OF CRITICAL EVENTS AS USED IN THE STUDY OF ATS-6 EDUCATIONAL DEMONSTRATION IN ALASKA: AN ALTERNATIVE METHOD TO FIELD WORK FOR PROGRAM EVALUATION AND THE GENERATION OF POLICY ISSUES." APR 1976, CENTER FOR NORTH

HEGWOOD, R.B.
0837 "DATA COLLECTION SYSTEMS APPLICATION TO REMOTE CARDIAL MONITORING." MAR 1975, PROPOSAL.

HEIN, G.F.
0765 SEE AUTHOR : ENGLER, M.A.

HELLWIG, H.-W.
0617 SEE AUTHOR : EASTON, R.L.

HEMPTON, CARL, G.F.
 0847 "PRELIMINARY REPORT OF THE VHF-FM SATELLITE COMMUNICATION TEST CONDUCTED ABOARD THE U.S. COAST GUARD CUTTER KLANATH." U
 0848 S.C.G. MAY 1967.

HENDERSON, E.
 0849 "VISUAL TELECONFERENCING EXPERIMENTS VIA A 14/12 GHZ SATELLITE SYSTEM." APR 1978, DEPARTMENT OF HEALTH, EDUCATION AND WEL
 0850 FARE, NATIONAL LIBRARY OF MEDICINE, BETHESDA, MARYLAND, PAPER, A78-32915.

HENDERSON, E.
 0842 "ELEMENTS OF A BROADBAND BIOMEDICAL COMMUNICATIONS NETWORK." SEP 1976, NATIONAL LIBRARY OF MEDICINE, BETHESDA, MARYLAND, P
 0843 APER, A77-99861.

HENDERSON, EARL
 0849 SEE AUTHOR : BOHR, JOHN L.

HENDRICKSON, W.D., JR.
 1002 "TEACHER IN THE SKY." APR 1975, WALTER D. HENDRICKSON, JR., JOURNAL ARTICLE, U.D. ROESCH LIB.: EJJ15016.

HENRY, V.F.
 0593 "ATIS-6 RADIO FREQUENCY INTERFERENCE MEASUREMENT EXPERIMENT." NOV 1975. JOURNAL ARTICLE, 76A 17908.

HENSLEY, C.L.
 0743 SEE AUTHOR : BRAMBLE, W.J.

HILBERT, A.G.
 0141 "CORRESPONDENCE & NOTES FROM THE EARLY PLANNING PERIOD OF THE ALASKA EXPERIMENT." APR 68 - AUG 70, SATELLITE COMMUNICA
 0142 TIONS TASK FORCE, STATE OF ALASKA, ANCHORAGE, ALASKA. CORRESPONDENCE/INFORMAL NOTES.

HILBERT, A.G.
 0180 "CORRESPONDENCE TO WERNER VON BRAUN IN REGARD TO ALASKA ACTIVITY WITH ATIS-1." JUL 71, NORTHERN TELEVISION, INC., ANCH
 0181 ORAGE, CORRESPONDENCE.

HILTON, G.E.
 0450 "METEOROLOGICAL EXPERIMENT USING THE OMEGA SYSTEM FOR POSITION LOCATION." NASA - GSFC. 1965.

HILTON, G.E.
 0459 "OMEGA LOCATION AND SATELLITE REPORTING FOR WORLD-WIDE OBSERVATION SYSTEMS." NASA - GSFC. OCT. 1965.

HILTON, R. J.
 0457 "AIR TRAFFIC CONTROL DEMONSTRATION ASPECTS OF THE APPLICATIONS TECHNOLOGY SATELLITE-6." APRIL 75, AMERICAN INSTITUTE OF
 0458 AERONAUTICS AND ASTRONAUTICS, DIGITAL ATOMICS SYSTEM CONFERENCE, BOSTON, MASSACHUSETTS, PAPER, 75A 26723.

HINCHMAN, W.R.
 0156 "TRANSCONTINENTAL INTERCONNECTION EXPERIMENT TEST SCHEDULE." FEB 70; CORPORATION FOR PUBLIC BROADCASTING, NEW YORK, NEW
 0157 YORK.

HINGORANI, R. C.
 0660 "INDO-UNITED STATES COOPERATION IN SPACE COMMUNICATION." SEPTEMBER 1975, PAPER, 76A 10605.

HIMAI, MASACHI
U19 "TEST SCHEDULE OF EXPERIMENTAL PCM COMMUNICATION SYSTEM WITH APPLICATION TECHNOLOGY SATELLITE." AUG 66; MINISTRY OF POSTS AND TELECOMMUNICATIONS, RRL, TOKYO, JAPAN.

HIRST, D.
U306 "VHF TRANS-IONOSPHERIC PROPAGATION MEASUREMENTS." AUG 1968; MINISTRY OF TECHNOLOGY, RADIO DEPT., ROYAL AIRCRAFT ESTABLISHMENT, FARNBOROUGH, HANTS, ENGLAND.

HODGE, D.B.
U639 "MILLIMETER WAVELENGTH PROPAGATION STUDIES." JUN 1974, OHIO STATE UNIVERSITY COLUMBUS, OHIO, TECHNICAL REPORT, M79 29925.

HODGE, D.B.
U642 "A 15.3 GHZ SATELLITE TO GROUND DIVERSITY EXPERIMENT UTILIZING THE ATS-S SATELLITE." OCT 1972, OHIO STATE UNIVERSITY COLUMBUS, OHIO, TECHNICAL REPORT, M73M 12144.

HODGE, D.B.
U894 "OSU PARTICIPATION IN THE CIS COMMUNICATIONS LINK CHARACTERIZATION EXPERIMENT." DEC 76, THE OHIO STATE UNIVERSITY ELECTROSCIENCE LABORATORY, DEPARTMENT OF ELECTRICAL ENGINEERING, COLUMBUS, OHIO, 43212, TECHNICAL REPORT, M185; M77-25373, NASA.

HODGE, D.B.
U900 SEE AUTHOR : THEOBOLD, D.M.

HODGE, D.B.
U946 "ATS-6 MILLIMETER WAVELENGTH PROPAGATION EXPERIMENT." JUNE 1975, THE OHIO STATE UNIVERSITY ELECTROSCIENCE LABORATORY, DEPARTMENT OF ELECTRICAL ENGINEERING, COLUMBUS, OHIO 43212, PROGRESS REPORT.

HODGE, D.B.
U609 "ATS-6 MILLIMETER WAVELENGTH PROPAGATION EXPERIMENT." JAN 1976, NASA, GSFC, GREENBELT, MARYLAND 20771, TECHNICAL REPORT, M76-1 9211, CR-144737.

HOEHN, R.E.
U383 "ASTROTEACHING." MAR 1977, JOURNAL ARTICLE, EJ 160 729.

HOFFMAN, M.
U015 SEE AUTHOR : LAROSA, R.M.

HOGAN, M.
U873 SEE AUTHOR : GOODMAN, J.M.

HOLLENBAUGH, R.
U458 SEE AUTHOR : MILTON, G.E.

HOLI, S.W.
U802 SEE AUTHOR : BOSTIAN, C.W.

HOLI, S.W., JR.
U919 SEE AUTHOR : BOSTIAN, C.W.

HOMWOOD, M.I.
U196 "PROPOSAL FOR SATELLITE RANGING EXPERIMENTS USING ATS-1." DEC 69; DEPT OF SUPPLY, MELBOURNE, AUSTRALIA.

HOMWOOD, M.I.
U208 "AUSTRALIAN REQUEST FOR INFORMATION CONCERNING JAPANESE PULSE CODE MODULATION TESTS VIA ATS." MAY 68; DEPT. OF SUPPLY, CANBERRA, AUSTRALIA.

HOPEWOOD, M.I. - "AUSTRALIAN POST OFFICE PROPOSED EXPERIMENTS FOR ATS PROGRAM." AUG 1967, DEPARTMENT OF SUPPLY, MELBOURNE, AUSTRALIA.
U314

MORTON, THOMAS F.
"CORRESPONDENCE CONCERNING ATS-1 SUPPORT FOR J. COUSTEAU SOUTHERN POLAR EXPEDITION." OCT 72; THALASSA, LOS ANGELES, CA
U203
13F.

MORVAL, G.
U739 SEE AUTHOR : TAYLOR, D.P.

MORWILL, S.P.
0020 SEE AUTHOR : DIAMBRA, N.M.

HOUSE, A.M.
0005 "REPORT ON MEMORIAL UNIVERSITY OF NEWFOUNDLAND'S EXPERIMENTAL USE OF THE COMMUNICATIONS TECHNOLOGY SATELLITE NETWORKS IN
TELEVISION." JUL 1970, MEMORIAL UNIVERSITY OF NEWFOUNDLAND, TECHNICAL REPORT.

HOUSE, A.M.
0711 "TELEVISION IN CANADA." AUGUST 1977, MEMORIAL UNIVERSITY OF NEWFOUNDLAND, ST. JOHN'S, NEWFOUNDLAND, CANADA, JOURNAL ARTICLE.
C.

HOWELL, L.U.
0446 SEE AUTHOR : SHENK, M.E.

HOWELL, M.G.
U959 "20 AND 30 GHZ ATTENUATION MEASUREMENTS USING THE ATS-6 SATELLITE." OCT 1977, POST OFFICE RESEARCH CENTRE, MARILESHAM W
LATH, IPSWICH, UK, TECHNICAL REPORT, NTIS: N70-15340.

HOWELL, M.G.
U961 "20 AND 30 GHZ CROSS-POLARIZATION MEASUREMENTS USING THE ATS-6 SATELLITE." OCT 1977, POST OFFICE RESEARCH CENTRE, MARIL
ESHAM HEATH, IPSWICH, UK, TECHNICAL REPORT, NTIS: N70-15343.

HSUEH, T.
0069 SEE AUTHOR : LASEUR, M.E.

HUBERT, L.F.
0440 "METEOROLOGICAL SATELLITE." 1960.

HICK, R.W.
0400 "COMMUNICATIONS EXPERIMENTERS' GUIDE." FEB 1975, COMMUNICATIONS RESEARCH CENTRE, DEPARTMENT OF COMMUNICATIONS, OTTAWA, ONTAR
IO, CANADA, TECHNICAL MEMORANDUM, M75-23655.

HINDON, M.U.
0202 "PRECIPITATION ANALYSIS FOR DONEY PERIOD III." SEP 1975, NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION, WASHINGTON, D.C.
02025, TECHNICAL REPORT, PB-246 07D.

HINDSON, H.E.
0452 SEE AUTHOR : KREIMER, O.

HINDSON, H.E.
U519 SEE AUTHOR : FORIE, O.R.

HINDSON, H.E.
U744 "COLLEGE CURRICULUM - SHARING VIA CIS." 21-23 JULY 1975, ATAA CONFERENCE ON COMMUNICATION SATELLITES FOR HEALTH/EDUCATION
APPLICATIONS, DENVER, COLORADO, PAPER, A75-18030.

MURSON, HEATHER E.
 0252 "THE SATELLITE RADIO AND HEALTH IN THE VILLAGE: RESULTS OF A QUESTIONNAIRE FOR HEALTH AIDS." 1972; STANFORD UNIVERSITY
 Y, STANFORD, CALIF.

HUGHES AIRCRAFT CO.
 0157 SEE AUTHOR : UNKNOWN

INHL, L.
 0109 SEE AUTHOR : FUJITA, T.T.

KUMCZAR, M.R.
 0700 SEE AUTHOR : DONOUEHE, P.L.

KUMCZAR, M.R.
 0779 SEE AUTHOR : DONOUEHE, P.L.

HUPE, H.M.
 0076 "AN EDUCATION SATELLITE: COSTS AND EFFECTS ON THE EDUCATIONAL SYSTEM." OCT 1974, DEPARTMENT OF HEALTH, EDUCATION, AND
 WELFARE, OFFICE OF TELECOMMUNICATIONS POLICY, TELECOMMUNICATIONS MARKET DEVELOPMENT, JOURNAL ARTICLE *** EDUCATIONAL TECHN

HUPE, H.M.
 0099 "THE COMING "BROADCAST" SATELLITES: WHERE THEY SHOULD AND SHOULD NOT BE USED IN DELIVERING EDUCATION SERVICES." DEC 1
 9, DEPARTMENT OF HEALTH, EDUCATION AND WELFARE, JOURNAL ARTICLE *** EDUCATIONAL TECHNOLOGY, VOL. 14, NO. 12, PP 40-43, DEC

HUPE, H.M.
 0524 "STEPPING UP TO A PUBLIC SERVICE SATELLITE CONSORTIUM." MAY 1975, JOURNAL ARTICLE.

HUPE, H.M.
 0525 "COST-EFFECTIVENESS OF AN INTERACTIVE BROADCAST SATELLITE." JAN 1975, JOURNAL ARTICLE.

HUPE, H.M.
 0540 "MARKETS FOR A SOCIAL SERVICES SATELLITE." FEB 1975, DEPT. OF HEALTH, EDUCATION AND WELFARE, OFFICE OF TELECOMMUNICATIONS P
 OLICY, JOURNAL ARTICLE.

HUPE, HOWARD H.
 0509 SEE AUTHOR : BOOR, JOHN L.

HUSTED, J.M.
 0416 SEE AUTHOR : MCCLURE, R.B.

HYDE, G.
 0594 "RTS-6 PRELIMINARY RESULTS FROM THE 1310-GHZ COMSAT PROPAGATION EXPERIMENT." NOVEMBER 1975, JOURNAL ARTICLE, 76A 17910.

ILLIENEN, M.E.
 0007 SEE AUTHOR : HANAS, O.J.

IRANGIO, S.S.
 0007 SEE AUTHOR : PAVLINAS, G.A.

INFORMATION SCIENCES COMPANY
 0077 SEE AUTHOR : POLLYN, M.A.

INFORMATION SCIENCES, INC.
0098 SEE AUTHOR : POLCTM, N.A.
INSTITUTE FOR SATELLITE ELECTRONICS
0110 SEE AUTHOR : EDRAUER, F.
INTERNATIONAL TELEPHONE AND TELEGRAPH CORPORATION(ITT)
0112 SEE AUTHOR : KOENIG, C.W.
INTERSPACE COMMUNICATIONS, INC.
0161 "SATELLITE COMMUNICATIONS FOR ALASKA." JUN 70, INTERSPACE COMMUNICATIONS, INC., PROPOSAL (USDCL).
0238
IPPOLITO, L.-J. "SELECTED PAPERS ON MILLIMETER-WAVE EXPERIMENTS USING THE A1S-5 SATELLITE." NOV 70; NASA, GSFC, GREENBELT, MARYLAND.
0672
IPPOLITO, L.-J. "THE A1S-F MILLIMETER WAVE PROPAGATION EXPERIMENT." OCT. 1971, NASA GODDARD SPACE FLIGHT CENTER GREENBELT, MARYLAND, TECHNICAL REPORT, 72X 10021.
0513
IPPOLITO, L.-J. "TWENTY AND THIRTY GHZ MILLIMETER WAVE EXPERIMENTS WITH THE A1S-6 SATELLITE." AUG 1975, NASA GODDARD SPACE FLIGHT CENTER, GREENBELT, MD. 75-33150, TECHNICAL REPORT.
0551
IPPOLITO, L.-J. "20-AND 30-GHZ MILLIMETER WAVE EXPERIMENTS WITH THE A1S-6 SATELLITE." APRIL 1976, GODDARD SPACE FLIGHT CENTER, GREENBELT, MARYLAND 20771, TECH. MEMORANDUM, 76M 22429.
0595
IPPOLITO, L.-J. "A1S-6-MILLIMETER WAVE PROPAGATION AND COMMUNICATIONS EXPERIMENTS AT 20 AND 30 GHZ." NOV 1975, JOURNAL ARTICLE, 76A 1790
0664
ISLEY, M.C. "A1S-6 INTERFEROMETER." NOV 75, JOURNAL ARTICLE.
0611
JACMIN, L.G. SEE AUTHOR : MITRA, A.P.
0790
JACKSON, M.D. "A DIGITALLY IMPLEMENTED COMMUNICATIONS EXPERIMENT UTILIZING THE HERMES (CTS) SATELLITE." DEC 1977, TECHNICAL MEMORANDUM.
0790
JAFFE, L. "INTERNATIONAL EXPERIMENTATION WITH COMMUNICATIONS SATELLITES." NASA, OFFICE OF SPACE SCIENCE AND APPLICATIONS, WASH. D.C. AUG. 1968.
0110
JAFFE, L. "COMMUNICATION IN SPACE." HOLT, RINEHART, AND WINSTON, INC...
0029
JAHN, U. SEE AUTHOR : HAGEN, B.
0247
JAHN, U. SEE AUTHOR : HAGEN, B.

JAMES, U. J. SEE AUTHOR : BARNES, G. W.
0307

JAMISON, DEAN SEE AUTHOR : SUPPES, P.
0152

JAMISON, D. "USING SATELLITES TO IMPROVE EFFICIENCY IN DELIVERY OF EDUCATIONAL SERVICES." DECEMBER 1972, STANFORD UNIVERSITY, CALIFORNIA
0601
JA INSTITUTE FOR MATHEMATICAL STUDIES, STANFORD, CALIFORNIA, PAPER, ED 074 789.

JANKY, J.M. "THE ATS-6 HEALTH EDUCATION TELECOMMUNICATION (HEI) EXPERIMENT." FEDERATION OF ROCKY MOUNTAIN STATES, DENVER, COLORADO.
0857
TECHNICAL MEMORANDUM, AIAA: A77-28303.

JANKY, J.M. SEE AUTHOR : LUSIGNAN, B.B.
0544

JANKY, J.M. "THE VOICE/DATA COMMUNICATIONS SYSTEM IN THE HEALTH, EDUCATION, TELECOMMUNICATIONS EXPERIMENTS." 1975, FEDERATION OF ROCKY
0628
MOUNTAIN STATES, DENVER, COLO., TECHNICAL REPORT, ED RS ED 115237.

JANKY, J.M. SEE AUTHOR : LAURENCE, D.R.
0629

JANKY, JAMES M. SEE AUTHOR : BOOR, JOHN L.
0509

JANZA, FRANK J. "PROPOSAL FOR PACIFIC-MAINLAND EDUCATION AND COMMUNICATION EXPERIMENTS BY SATELLITE FOR ADVANCING REMOTE SENSING APPLIC
0197
ATIONS BY EITS, AIRCRAFT, AND SKYLAB." APR 73; CALIFORNIA STATE UNIV., SACRAMENTO, CALIFORNIA.

JAPAN MINISTRY OF POSTS AND TELECOMMUNICATIONS
0036
SEE AUTHOR : KASHIMA EARTH STATION

JAN, G. SEE AUTHOR : RYAN, M.G.
0128

JEFFERSON, F. W. "ATS-1 VHF COMMUNICATIONS EXPERIMENTATION." JUNE 70; NATIONAL AVIATION FACILITIES EXPERIMENTAL CENTER, ATLANTIC CITY, NE
0289
W JERSEY, 08405.

JEFFERSON, F.W. "AIR TRAFFIC CONTROL EXPERIMENTATION AND EVALUATION WITH THE NASA ATS-6 SATELLITE - VOLUME 2." APRIL 1976, FEDERAL AVIATI
0686
ON ADMINISTRATION, NATIONAL AVIATION FACILITIES EXPERIMENTAL CENTER, ATLANTIC CITY, NEW JERSEY 08405, TECHNICAL REPORT, FAA-RD

JESPersen, J.L. "SATELLITE VHF TRANSPONDER TIME SYNCHRONIZATION." NATIONAL BUREAU OF STANDARDS. JULY 1968.
0413

JOHANSEN, P.A. SEE AUTHOR : FILEP, R.T.
0690

JOHANSEN, P.A. SEE AUTHOR : FILEP, R.T.
0796

JOHN, D.
U071 "ORGANIZING TO USE A NEW TELECOMMUNICATIONS TECHNOLOGY: COMMUNICATIONS SATELLITES AND VOCATIONAL REHABILITATION." SEPT
77, CENTER FOR SOCIAL RESEARCH AND DEVELOPMENT, DEPARTMENT OF INDUSTRIAL ECONOMICS, DENVER RESEARCH INSTITUTE, UNIVERSITY

JOHNS HOPKINS UNIVERSITY
U018 "PRECISE TIME DISSEMINATION EXPERIMENT (PTDE): PHASE ONE TEST PLAN." JAN 1974, THE JOHNS HOPKINS UNIVERSITY, APPLIED P
HYSICS LABORATORY, DESC. OF PLAN. EXP. NO. CSC-2-231.

JOHNSON, M. H.
U652 SEE AUTHOR : SCHWARZ, M. R.

JOHNSON, M.R.
U474 "VHF SHIPBOARD TESTS FROM OCEAN STATION BRAVO." U.S.C.G., WASHINGTON RADIO STATION, ALEXANDRIA, VA. OCT. 1968.

JOHNSON, M.U.
U664 SEE AUTHOR : WARE, J.M.

JOHNSON, R.G.
U087 SEE AUTHOR : SHARP, R.D.

JOHNSTON, W.A. JR.
U543 SEE AUTHOR : WHALEN, A.A.

JOHNSTON, W.A. JR.
U804 SEE AUTHOR : DORNBRAND, HARRY

JOINT COUNCIL ON EDUCATIONAL TELECOMMUNICATIONS(JCET)
U213 SEE AUTHOR : NORWOOD, F.W.

JOINT COUNCIL ON EDUCATIONAL TELECOMMUNICATIONS(JCET)
U254 SEE AUTHOR : BURKE, J.R.

JONES, J.E.
U590 SEE AUTHOR : DAVIES, K.

JONES, J.E.
U705 SEE AUTHOR : DAVIES, K.

JORDAN, C.L.
U648 SEE AUTHOR : LASEUR, M.E.

JORDAN, C.L.
U869 SEE AUTHOR : LASEUR, M.E.

KAHN, A.
U829 "CONDUCTING A TELECONFERENCING EXPERIMENT ORIENTED TO PRIVATE INDUSTRY APPLICATIONS VIA COMMUNICATIONS TECHNOLOGY SATEL
LITE." FEB 1977, WESTINGHOUSE ELECTRIC CORPORATION, BALTIMORE, MARYLAND, TECHNICAL REPORT, FIS-77-4002.

KAHN, M.U.
U870 SEE AUTHOR : VONBUN, F.O.

KAHN, M.U.
U916 SEE AUTHOR : VONBUN, F.O.

KAHN, M.U.
U907 SEE AUTHOR : VONBUN, F.O.

KAISER, H.L. "AIS-1 REPORT--ANCHITNA ISLAND, ALASKA." SEP 1974, U.S. ATOMIC ENERGY COMMISSION, NEVADA OPERATIONS OFFICE, LAS VEGAS, NEVADA, TECH. REPT. (LETTER REPORT).

KAMAS, J.B. SEE AUTHOR : JESPERSEN, J.L.
U413

KAMINSKY, Y. SEE AUTHOR : BRANDEL, D.L.
D682

KAMINSKY, Y. "ATS-6 MARITIME SATELLITE EXPERIMENTS." NOV 1975, TECHNICAL REPORT, PB-250 881.
D605

KANE, R.M. "PROCEEDINGS OF THE WORKSHOP ON BEACON SATELLITE STUDIES." DECEMBER 1976, PHYSICAL RESEARCH LABORATORY, AHMEDABAD, INDIA, PROCEEDINGS.
U706

KARNIN, M. SEE AUTHOR : CHANDER, R.
U948

KASHIMA EARTH STATION "SATELLITE COMMUNICATION EXPERIMENTS VIA AIS-1." APR 1970- AUG 1973, TECH. REPT. KASHIMA EARTH STATION, RADIO RESEARCH LABS., MINISTRY OF POSTS AND TELECOMMUNICATIONS, JAPAN.

KASHIMA EARTH STATION "BROADCASTING SATELLITE SERVICE : TELEVISION : FOR COMMUNITY RECEPTION, A TIME DIVISION MULTIPLEX TRANSMISSION SYSTEM OF TELEVISION SOUND USING COLOUR SYNC SIGNAL IN COMMON." JAPAN, OCT. 1970.

KATZ, R. SEE AUTHOR : JOHN, D.
U871

KAUFFMAN, S.R. SEE AUTHOR : BOSTIAN, C.W.
U802

KAUFFMAN, S.R. SEE AUTHOR : BOSTIAN, C.W.
U919

KAUFFMAN, S.R. SEE AUTHOR : BOSTIAN, C.W.
U990

KAUFFMAN, S.R. SEE AUTHOR : BOSTIAN, C.W.
U991

KAVANAU, L.L. "PRACTICAL SPACE APPLICATIONS." AMERICAN ASTRONAUTICAL SOCIETY, NATIONAL MEETING, SAN DIEGO, CALIF. FEB. 1966. PROCEEDINGS.
U408
GS.

KAY, P. "REVIEW OF REPRESENTATIVE PUBLIC SERVICE EXPERIMENTS AS THEY APPLY TO RURAL TELECOMMUNICATIONS." NOV 76, U.S. CONGRESS OFFICE OF TECHNOLOGY, ASSESSMENT CONFERENCE ON COMMUNICATIONS AND RURAL AMERICA, WASHINGTON, D.C., PAPER, ERIC: ED 135 523.

KIAME, L.M. "A MULTIPLE USER SATELLITE SYSTEM FOR NAVIGATION AND TRAFFIC CONTROL." NASA ELECTRONICS RESEARCH CENTER, CAMBRIDGE, MASS., OCT. 1969.

KELLEHER, J.-J. "COMPILATION OF REPORT SUMMARIES OF AIS SATELLITE EXPERIMENTS IN SEVERAL APPLICATION AREAS." SEP 1972, NATIONAL SCIENTIFIC LABORATORIES, INC., MCLEAN, VIRGINIA, BIBLIOGRAPHY.

KELLEHER, J.-J. "FIELD EVALUATION OF SELECTED AIS USER EXPERIMENTS." MAY 73; SYSTEMATICS GENERAL CORP., NAT'L SCIENTIFIC LABS, MCLEAN, VIRGINIA, MASS-11035, (NASA GSFC).

KELLEHER, J.-J. "CATALOG OF AIS USER EXPERIMENTS." SEP 72; SYSTEMATIC GENERAL CORP., NAT'L SCIENTIFIC LABS, MCLEAN, VIRGINIA, (NASA GSFC).

KELLEHER, J.-J. SEE AUTHOR : PIERCE, J.-R.

KELLER, C.-H. "ATS-1 COMPUTER COMMUNICATIONS EXPERIMENT." 1970, NASA, AMES RESEARCH CENTER, SPACECRAFT DATA SYSTEMS BRANCH, MOFFETT FIELD, CALIFORNIA; DESCRIPTION OF PLANNED EXPERIMENT.

KELLER, C.-H. "ATS-1 COMPUTER COMMUNICATIONS EXPERIMENT." FEB 72, SPACECRAFT DATA SYSTEMS BRANCH, AMES RESEARCH CENTER, MOFFETT FIELD, CALIFORNIA, PROPOSAL, (NASA).

KENNARD, J.-G. "CTS REFERENCE BOOK." OCT 1975, LEWIS RESEARCH CENTER, CLEVELAND, OHIO, REFERENCE BOOK, M76-T1143, TM-X-1029.

KEOUGH, U915 "SPACE SATELLITE IN HEALTH EDUCATION.", JOURNAL OF CONTINUING EDUCATION IN NURSING, JOURNAL ARTICLE.

KINCADE, C. W. SEE AUTHOR : FAGER, J. A.

KING, C.-H. SEE AUTHOR : ALMUTT, M.-W.

KING, J.-L. "THE COMSAT 13 AND 10 GHZ PROPAGATION EXPERIMENT." OCT. 1975, ELECTRONICS AND AEROSPACE SYSTEMS CONVENTION WASHINGTON, D.C. PAPER, 76A 40670.

KING, J.-L. SEE AUTHOR : DEES, J.-W.

KING, KENNETH L. "SATELLITE TECHNOLOGY DEMONSTRATION." JULY 75, NATIONAL INSTITUTE OF EDUCATION, U.S. DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE, JOURNAL ARTICLE *** AUDIOVISUAL INSTRUCTION, PP. 30-39, JUNE/JULY 75.

KING, S.-S. "COMMUNICATION AND THE FUTURES: AN EXPERIMENT IN SATELLITE EDUCATION." NOV 1977, JOURNAL ARTICLE, EJ 173 264.

KIMIK, J. "ATS-1 TEST PROGRAM WITH TELESAT CANADA." OCT 1972, TELESAT CANADA, OTTAWA, ONTARIO TECH. REPT. 0031

KISKADOUN, M. "EXPERIMENTAL L-BAND SST SATELLITE COMMUNICATIONS/SURVEILLANCE TERMINAL STUDY." NOVEMBER 1968, BOEING AIRPLANE COMPANY, COMMERCIAL AIRPLANE DIVISION, RENTON, WASHINGTON, M69-21096.

KISSEL, F. "L-BAND PERFORMANCE CHARACTERISTICS OF THE ATS-5 SPACECRAFT." NASA-GSFC. MAY 1970. U451

KLEIN, L. SEE AUTHOR : STANFORD, G. U604

KLEPPE, J.A. "PROPOSAL FOR STUDYING CARRIER SHIFT TECHNIQUES AND INCREASING MAXIMUM DATA TRANSMISSION RATE THROUGH ATS-3 VHF TRANSPONDERS FOR A MOBILE WEATHER MODIFICATION SYSTEM." JAN 1972, UNIVERSITY OF NEVADA, DEPT. OF ELECTRICAL ENGINEERING, PROPOSAL U006

KLEPPE, J.A. "TRANSMISSION OF HURRICANE RADAR DATA VIA ATS-3." DEC 1971, UNIVERSITY OF NEVADA, DEPT. OF ELECTRICAL ENGINEERING, PROPOSAL U007 OSAL.

KLEPPE, J.A. "AN EXPERIMENTAL STUDY OF DIGITAL DATA TRANSMISSION USING ATS SATELLITE VHF TRANSPONDERS: VHF SEEK." JUN 1972, SIERRA RESEARCH ENVIRONMENTAL LAB., BOULDER, COLORADO, UNIVERSITY OF NEVADA, TECH. REPT. PROJECT SEENSTORM. U044

KLEPPE, J.A. "TECHNICAL SYSTEMS FOR THE PYRAMID PILOT PROJECT." 1972, UNIVERSITY OF NEVADA, DESERT RESEARCH INSTITUTE, TECH. REPT. U063

KLOBUCHAN, J.A. "INTRODUCTION TO VHF SATELLITE NAVIGATION AND COMMUNICATIONS SYSTEMS." AIR FORCE CAMBRIDGE RESEARCH LABS., BEDFORD, MASS. NOV. 1970. U447

KLOBUCHAN, J.A. "POLARIZATION OF VHF WAVES EMITTED FROM GEOSTATIONARY SATELLITES." 1 NOV 75, AIR FORCE CAMBRIDGE RESEARCH LABORATORIES (LIR), HANSCOM AFB, MASSACHUSETTS 01731, TECHNICAL REPORT, ORIGINATOR: AFCL-TR-75-0642, OTHER: ADA019603. U918

KNOX, D.M. SEE AUTHOR : FRENCH, R.F.G. U969

KOENIG, L.W. "A REVIEW OF THE IMAGE DISSECTOR METEOROLOGICAL CAMERAS AND A VIEW OF THEIR FUTURE." MAR 1969, AEROSPACE/OPTICAL DIV, INTERNATIONAL TELEPHONE AND TELEGRAPH CORP., FORT WAYNE, INDIANA, TECH. REPT. INASAI. U112

KRAEMER, J.H. SEE AUTHOR : DUNCOMBE, C.B. U811

KRAUTZER, D.L. SEE AUTHOR : HANAS, O.J. U002

KRAUTZER, D.L. SEE AUTHOR : BARNLA, J.O. U503

KREMER, O. "HEALTH CARE AND SATELLITE RADIO COMMUNICATION IN VILLAGE ALASKA: FINAL REPORT OF THE ATS-1 BIOMEDICAL SATELLITE, EXPERIMENT EVALUATION." JUN 1974, NATIONAL CENTER FOR BIOMEDICAL COMMUNICATION. TECH. REPT. CONTRACT M01-LM-1-4710. U052

KREIMER, O.
0947 SEE AUTHOR : SPAIN, P.

KRISHNAMOORTHY, P.V.
0538 "LEARNING THROUGH SATELLITE BROADCASTING." 1975, REPORT.

KRISHNAMURTI, T.N.
0869 SEE AUTHOR : LASUR, M.E.

KUEGLEK, G.
0032 SEE AUTHOR : RAMASASTRY, J.

KUEGLEK, G.K.
0995 "HIGH POWERED BROADCAST TECHNOLOGY - CTS." 1977, WESTINGHOUSE ELECTRIC CORPORATION, BALTIMORE, MARYLAND, PAPER, OTHER : 312A-3126-EASCOM.

KUNIMOTO, ELIZABETH M.
0281 "SPEECH-COMMUNICATION INSTRUCTION BY SATELLITE." DEC 71; UNIVERSITY OF HAWAII, SPEECH-COMMUNICATION DEPT., HONOLULU, HAWAII.

KUJO, C.J.
0687 SEE AUTHOR : SCHROEDER, E.M.

KUO, C.J.
0775 "AIR TRAFFIC CONTROL EXPERIMENTATION AND EVALUATION WITH THE NASA ATS-6 SATELLITE, VOL 7: ANTENNA EVALUATION TEST." SEP 1976, BOEING, SEATTLE, WASH, TECHNICAL REPORT.

MURODA, Y.
0412 "INTERNATIONAL SYMPOSIUM ON SPACE TECHNOLOGY AND SCIENCE, TEH, TOKYO, JAPAN . MAY 1967. PROCEEDINGS."

MURZ, C.G.
0178 SEE AUTHOR : MUELLER, E.J.

MURZ, CHARLES G.
0175 "ATS-B VHF COMMUNICATION EXPERIMENT TEST PLAN FOR SATELLITE COMMUNICATION EQUIPMENT." AUG 66; US DEPT OF COMMERCE, MARITIME ADMINISTRATION, WASHINGTON, D.C.

LAJOS, S.C.
0439 "REMARKS ON ATS TIME SYNCHRONIZATION." NASA-GSFC, 1968.

LANDIS, C.
0975 "SATELLITE OPPORTUNITIES FOR HIGHER EDUCATION: REAL AND POSSIBILITY." JAN 1977, THE CORPORATION OF EDUCON, JOURNAL ARTICLES.

LAROSA, R. M.
0293 "THE BENEFITS AND APPLICATIONS OF MARITIME SATELLITES." 1974; EXXON CORP, NEW YORK, NEW YORK.

LAKOSA, R.M.
0015 "AN EXPERIMENT WITH MARITIME SATELLITE MULTIMODE COMMUNICATIONS AND POSITION FIXING." JUL 1973- FEB 1974, EXXON CORPORATION AND GENERAL ELECTRIC COMPANY, TECH. REPT.

LAROSA, R.M.
0292 SEE AUTHOR : ANDERSON, R.E.

LASEUR, M.E. "A MULTIPLE-SCALE RESEARCH PROGRAM IN TROPICAL METEOROLOGY." AUG. 1969, DEPT OF METEOROLOGY FLORIDA STATE UNIV. TALLAHASSEE
U648
FLA., TECHNICAL REPORT, AD 864696.

LASEUR, M.E. "A MULTI-SCALE RESEARCH PROGRAM IN TROPICAL METEOROLOGY." AUG 69, DEPARTMENT OF METEOROLOGY, FLORIDA STATE UNIVERSITY,
U649
TALLAHASSEE, FLORIDA, 32306, TECHNICAL REPORT, ORIGINATOR: OSD-1366, OTHER: AD864696.

LAUGHLIN, C.R. "THE RELAY OF OMEGA NAVIGATION SIGNALS BY SATELLITE TO A CENTRAL PROCESSING FACILITY." NASA-GSFC. JAN. 1970.
U443

LAUGHLIN, C.R. SEE AUTHOR : HILTON, G.E.
U450

LAURENCE, D.R. SEE AUTHOR : JANKY, J.M.
U620

LAURENCE, J.R. "EDUCATION VIA SATELLITE: HOW IT WAS DONE BY THE FEDERATION OF ROCKY MOUNTAIN STATES." 1975, FEDERATION OF ROCKY MOUNTAIN
U629
STATES, DENVER, COLO., JOURNAL ARTICLE.

LAVIGNE, R. SEE AUTHOR : HILTON, G.E.
U458

LAWSON, R.G. "PROPOSAL FOR DEMONSTRATION OF INSTRUCTION VIA SATELLITE." JUL 67; UNIV. OF WISCONSIN, SPACE SCIENCE AND ENGINEERING C
U170
ENTER, MADISON, WIS.

LAWSON, R.G. "CORRESPONDENCE ON UNIVERSITY OF WISCONSIN EXPERIMENT." 1968; UNIVERSITY OF WISCONSIN, SPACE SCIENCE AND ENGINEERING C
U171
ENTER, MADISON, WIS.

LEESE, J.A. "AN AUTOMATED TECHNIQUE FOR OBTAINING CLOUD MOTION FROM GEOSYNCHRONOUS SATELLITE DATA USING CROSS CORRELATION." JUN 19
U071
70, NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION (NOAA), NATIONAL ENVIRONMENTAL SATELLITE CENTER, JOURNAL ARTICLE, ***

LEESE, J.A. "ARCHIVING AND CLIMATOLOGICAL APPLICATIONS OF METEOROLOGICAL SATELLITE DATA." JUL 1970, NATIONAL ENVIRONMENTAL SCIENCE
U110
CENTER (NESCI, ENVIRONMENTAL SCIENCE SERVICES CENTER (ESSC), WASHINGTON, D.C., TECH. REPT.

LEMOY, B.E. SEE AUTHOR : MALOY, J.E.
U050

LEMOY, B.E. "GLOBAL DISASTER SATELLITE COMMUNICATIONS SYSTEM FOR DISASTER ASSESSMENT AND RELIEF COORDINATION." FEB 79, NATIONAL AER
U072
ONAUTICS AND SPACE ADMINISTRATION, LEWIS RESEARCH CENTER, CLEVELAND, OHIO, 44135, TECHNICAL MEMORANDUM, NTIS: N79-20176, M

LESTER, R. G. "TRANSMISSION OF RADIOLOGIC INFORMATION BY SATELLITE.: DEC 1973; DUKE UNIVERSITY MEDICAL CENTER, DURHAM, NORTH CAROLINA
U248
JOURNAL ARTICLE *** RADIOLOGY, VOL 109, NO 3, PP 731-732, DEC 1973 ***.

- LESTER, A.B. "DRAFT PROPOSAL FOR COLLABORATIVE STUDY OF X-RAY IMAGE TRANSMISSION." AUG 1971, DUKE UNIVERSITY MEDICAL CENTER, DURHAM, N.C., PROPOSAL.
- LESTER, R.M. 0707 SEE AUTHOR : CHAMBERLAIN, H.P.
- LEVANOW, M. 0434 "DETERMINATION OF THE SEA SURFACE SLOPE DISTRIBUTION AND WIND VELOCITY USING SUN GLITTER VIEWED FROM A SYNCHRONOUS SATELLITE." TEL AVIV UNIV., ISRAEL, JULY 1971.
- LEVATICH, J.L. 0502 "ATS-5 MM WAVE PROPAGATION EXPERIMENT." CONSAT LABS., APRIL 1970.
- LEVIS, C.A. 0994 "PRELIMINARY ANALYSIS OF 15 GHZ SCINTILLATIONS ON AN ATS-5 SATELLITE-TO-GROUND PATH." FEB 1976, THE OHIO STATE UNIVERSITY ELECTRO SCIENCE LABORATORY, DEPARTMENT OF ELECTRICAL ENGINEERING, COLUMBUS, OHIO, 43212, TECHNICAL REPORT, NITS: M76-25
- LEW, M. 0129 "CORRESPONDENCE ON CONTINUATION OF ATS-1 FOR ALASKA EXPERIMENT." JAN 73, ALASKA EDUCATIONAL BROADCASTING, ANCHORAGE, A LASKA, CORRESPONDENCE.
- LIM, I.L. 0972 "PHASE COHERENCY MEASUREMENTS ON ATS-6 L-BAND EMISSIONS." JULY 1977, VALLEY FORGE RESEARCH CENTER, MOORE SCHOOL OF ELECTRICAL ENGINEERING, UNIVERSITY OF PENNSYLVANIA, PHILADELPHIA, PA, TECHNICAL REPORT, IEEE: 79A-10720.
- LING, SUELIN 0224 "A STUDY OF THE POTENTIAL OF TELECOMMUNICATIONS AND EDUCATIONAL TECHNOLOGY TO SATISFY THE EDUCATIONAL COMMUNICATIONS NEEDS OF THE STATE OF ALASKA." MAY 72; TELCONSULT INC., WASHINGTON, D.C.
- LISTER HILL CENTER FOR BIOMEDICAL COMMUNICATIONS 0011 "THE LISTER HILL CENTER'S EXPERIMENTAL SATELLITE COMMUNICATIONS PROJECT." 1971, NATIONAL LIBRARY OF MEDICINE, LISTER HILL CENTER FOR BIOMEDICAL COMMUNICATIONS, DESCRIPTION OF PLANNED EXPERIMENT ON HEALTH CARE IN ALASKA.
- LISTER HILL CENTER FOR BIOMEDICAL COMM. 0273 SEE AUTHOR : BEATTIE, D.A.
- LIV, A.S. 0901 "ON THE DETERMINATION AND INVESTIGATION OF THE TERRESTRIAL IONOSPHERIC REFRACTIVE INDICES USING GEOS-3/ATS-6 SATELLITE-TO-SATELLITE TRACKING DATA." NOV 70, JET PROPULSION LABORATORY, TECHNICAL REPORT, NITS: M70 33207, NASA: NASA-CR-156090.
- LIV, A.S. 0999 "ON THE DETERMINATION AND INVESTIGATION OF THE TERRESTRIAL IONOSPHERIC REFRACTIVE INDICES USING GEOS-3/ATS-6 SATELLITE-TO-SATELLITE TRACKING DATA." NOV 1970, NASA, Wallops Flight Center, Wallops Island, Virginia, 23157, TECHNICAL REPORT, NITS
- LIV, C.H. 0910 SEE AUTHOR : UMEMI, R.
- LOCKHEED MISS. AND SPACE CO. 0452 "LOCKHEED EXPERIMENT ON ATS-5." FEB. 1970.
- LOCKHEED PAID AUTO RESEARCH LABORATORY 0007 SEE AUTHOR : SHARP, R.D.

LOGAN, M.
US57 SEE AUTHOR : CARD, M.L.

LONSDALL, H.C.
U715 "DEVELOPING AND IMPLEMENTING A CONTENT STRUCTURE FOR EDUCATIONAL TELEVISION PROGRAMMING IN THE AREA OF CAREER EDUCATION
 . SATELLITE TECHNOLOGY DEMONSTRATION, TECHNICAL REPORT NUMBER OS06." 1975, TECHNICAL REPORT, ED 115 240.

LOPIANOWSKI, M.M.
US57 SEE AUTHOR : CARD, M.L.

LORTIE, R.
U733 SEE AUTHOR : MENDENHALL, M.M.

LOS ALAMOS SCIENTIFIC LABORATORY
U209 SEE AUTHOR : PETERSON, R.W.

LOVELESS, F.M., JR.
1009 "SATELLITE-TO-SATELLITE TRACKING FOR ORBIT IMPROVEMENT AND DETERMINATION OF A 1 DEGREE GRAVITY FIELD." JUNE
 1976, OLD DOMINION SYSTEMS, INC., 4 PROFESSIONAL DRIVE, SUITE 119, GAITHERSBURG, MARYLAND, 20760, TECHNICAL REPORT, N115:

LOWE, B.L.
U673 SEE AUTHOR : DUBOSE, J.F.

LUMB, D.R.
U744 SEE AUTHOR : HUDSON, M.E.

LUNG, M.
U914 "APPLICATION SATELLITES; INTERNATIONAL ASTRONAUTICAL FEDERATION, INTERNATIONAL ASTRO. CONGRESS. 17TH, MADRID, SPAIN. PR
 CEEDINGS. OCT. 1966.

LUNDQUIST, G.E.
U201 "RECOMMENDED L-BAND EXPERIMENTAL PROGRAM USING ATS-5." AUG 72; DEPT. OF TRANSPORTATION, FAA, WASHINGTON, DC.

LUSHINE, J.B.
US42 SEE AUTHOR : GABY, D.C.

LUSIGNAM, B.B.
U025 "A JOINT PROPOSAL FOR AN ATS SATELLITE CIRCUIT BETWEEN STAMFORD UNIVERSITY AND COMISSAO NACIONAL DE ATIVIDADES ESPACIAIS
 S (CNAL), BRAZIL." DEC 1969, STAMFORD UNIVERSITY, PROPOSAL NL 13-69.

LUSIGNAM, B.B.
U151 "PROPOSAL FOR AN ATS CIRCUIT BETWEEN STAMFORD AND BRAZIL." APR 1969; STAMFORD UNIVERSITY, RADIO SCIENCE LAB, STAMFORD E
 LECTRONICS LAB, STAMFORD, CALIF.

LUSIGNAM, B.B.
OS44 "THE DEVELOPMENT OF THE PUBLIC SATELLITE CONSORTIUM: A HISTORY AND ANALYSIS OF TECHNICAL ALTERNATIVES." JOURNAL ARTICLE

MAANDERS, E.J.
U825 SEE AUTHOR : DIJK, J.

MAANDERS, E.J.
U958 SEE AUTHOR : DIJK, J.

MACKENZIE, E.C.
0965 SEE AUTHOR : SHUTTE, P.F.

MACMILLAN, R.M.
0962 SEE AUTHOR : NOVELL, R.G.

MACMILLAN, R.M.
0966 SEE AUTHOR : BELL, R.R.

MACY, J.W.
0155 "PROPOSAL FOR EXPERIMENTAL USE OF ADS." SEP 69; CPB, WASHINGTON; D.C.

MACY, JOHN W.
0231 "PROPOSED TEST PLAN FOR TELEVISION TRANSMISSION TO HUGHES GROUND STATION AT EL SEGUNDO." JAN 70; CORP. FOR PUBLIC BROADCASTING, WASHINGTON, D.C.

MAGUIRE, J.J.
0410 SEE AUTHOR : FREEMAN, J.J.

MAIER, M.
0571 SEE AUTHOR : GRIFFITH, C.G.

MALOT, J.E.
0850 "SPACECRAFT DESIGN SENSITIVITY FOR A DISASTER WARNING SATELLITE SYSTEM." FEB 77, LEWIS RESEARCH CENTER, NATIONAL AERONAUTICS AND SPACE ADMINISTRATION, CLEVELAND, OHIO, 44135. TECHNICAL MEMORANDUM, NASA; IN X-3469, OTHER; NT7 17020.

MANGA TERMINAL
0212 SEE AUTHOR : UNKNOWN

MANUS, E.A.
0678 SEE AUTHOR : STUIZMAN, W.L.

MANUS, E.A.
0802 SEE AUTHOR : POSTIAN, C.W.

MANUS, E.A.
0919 SEE AUTHOR : BOSTIAN, C.W.

MANUS, E.A.
0990 SEE AUTHOR : BOSTIAN, C.W.

MANUS, E.A.
0991 SEE AUTHOR : BOSTIAN, C.W.

MARCONI COMPANY
0033 "UNITED KINGDOM MARITIME SATELLITE COMMUNICATION TESTS." AUG- DEC 1970. POST OFFICE (UNITED KINGDOM); UNIVERSITY COLLEGE OF SWANSEA; THE MARCONI COMPANY; SHIP "ATLANTIC CAUSEWAY"; TECH. REPT.

MARCONI COMPANY
0324 SEE AUTHOR : UNIVERSITY COLLEGE OF SWANSEA

MARDESICH, M.J.
0778 SEE AUTHOR : THOMPSON, A.D.

MARION, R.
0933 SEE AUTHOR : BRAMBLE, W.J.

MARION, R.
0755 SEE AUTHOR : BRAMBLE, W.J.

MARION, R. "STUDENT ACHIEVEMENT: CAREER EDUCATION IN THE ELEMENTARY SCHOOL; SUMMER, 1979. TECHNICAL REPORT NUMBER NINE." AUGUST 1975
0750
RESOURCE COORDINATING CENTER, UNIVERSITY OF KENTUCKY, LEXINGTON, KENTUCKY, TECHNICAL REPORT, ED 116 639.

MARION, R. SEE AUTHOR : BRAMBLE, W. J.
0761

MARION, R. SEE AUTHOR : HARDING, L.
0817

MARITIME ADMINISTRATION
0175 SEE AUTHOR : KURZ, CHARLES G.

MARITIME ADMINISTRATION
0178 SEE AUTHOR : MUELLER, E. J.

MARITIME ADMINISTRATION
0198 SEE AUTHOR : ANDERSON, R. E.

MARITIME ADMINISTRATION - US DEPARTMENT OF COMMERCE
0260 "EXECUTIVE SUMMARY OF 'STUDY TO IMPROVE MARINE TRANSPORTATION THROUGH AEROSPACE ELECTRONICS'." JUN 73, US DEPARTMENT OF
COMMERCE, MARITIME ADMINISTRATION, APPLIED INFORMATION INDUSTRIES, MORRISTOWN, NEW JERSEY, TECH. MEMO.

MARITIME ADMINISTRATION
0268 "EXECUTIVE SUMMARY OF FINAL REPORT ON MARITIME MOBILE SATELLITE COMMUNICATIONS TESTS PERFORMED ON SS SANTA LUCIA." JW
1 68, WESTINGHOUSE ELECTRIC CORPORATION, TECH. MEMO.

MARPLE, D. G. SEE AUTHOR : MARPLE, M. H.
0762

MARPLE, M. H. "HISTORY AND RECOMMENDATIONS RESULTING FROM EVALUATION PLANNING FOR THE FEDERATION OF ROCKY MOUNTAIN STATES' EDUCATIONAL
0762 TECHNOLOGY DEMONSTRATION. FINAL REPORT." MAY 1979, STANFORD UNIVERSITY, DEPARTMENT OF COMMUNICATION, STANFORD, CALIFORNIA 943

MARSHALL, R. E. SEE AUTHOR : SUTZMAN, W. L.
0878

MARSHALL, R. E. SEE AUTHOR : BOSTIAN, C. W.
0802

MARSHALL, R. E. SEE AUTHOR : BOSTIAN, C. W.
0919

MARSHALL, R. E. SEE AUTHOR : BOSTIAN, C. W.
0990

MARSHALL, R. E. SEE AUTHOR : BOSTIAN, C. W.
0991

MARSTEN, R. B. "SATELLITE BROADCASTING - CAPABILITIES FOR PUBLIC SERVICE." JULY 75, AMERICAN INSTITUTE OF AERONAUTICS AND ASTRONAUTICS,
0854 CONFERENCE ON COMMUNICATION SATELLITES FOR HEALTH/EDUCATION APPLICATIONS, DENVER, COLORADO, PAPER, TSA 38020.

MARSTEN, R. B. SEE AUTHOR : LEW, W.
0129

MARSTEN, R. B. "INVENTORY OF COMMUNICATIONS SATELLITES AND ASSOCIATED GROUND FACILITIES." JUL 69; NASA, GSFC, GREENBELT, MARYLAND.
0137

MARSHEN, R.B. "SERVICE NETWORKS AND SYSTEMS ARCHITECTURE IN SATELLITE COMMUNICATIONS." MAY 1977, JOURNAL ARTICLE.
0800

MARTEL, R. SEE AUTHOR : BARBIERE, D.
0505

MARTIN, D.W. "CLOUD BUBBLES AND SQUALLS: THE ANATOMY OF AN ATLANTIC TROPICAL DISTURBANCE." MAR 1975, SPACE SCIENCE AND ENGINEERING
0996
CENTEN, UNIVERSITY OF WISCONSIN, 1225 WEST DAYTON STREET, MADISON, WISCONSIN, 53706, SCIENTIFIC REPORT, OTHER: NOAA GRANT

MARTIN, D.W. SEE AUTHOR : GRIFFITH, C.G.
0571

MARUSCHAK, J. "A PORTABLE L-BAND VOICE TRANSMITTER FOR SATELLITE COMMUNICATIONS." MARCH 1978, GODDARD SPACE FLIGHT CENTER, GREENBELT,
0985
MARYLAND, 20771, TECHNICAL MEMORANDUM, NTIS: NTIS-24403, ORIGINATOR: TM-70100.

MASLEY, A.J. "A15-6 SOLAR COSMIC RAY AND TRAPPED PARTICLE EXPERIMENT." NOVEMBER 1975, AEROSPACE ELECTROSYSTEMS CO., AZUSA, CA, 91702,
0890
JOURNAL ARTICLE.

MATHEWS, C.W. "OPPORTUNITIES FOR PARTICIPATION IN SPACE FLIGHT INVESTIGATIONS WITH THE COMMUNICATIONS TECHNOLOGY SATELLITE (CTS)." AUG
0020
G 1972, NASA, WASHINGTON, D.C., CODE ESC, REQUEST FOR PROPOSAL NMB 8030.1A.

MATTHEWS, G.E. "THE WEATHER SATELLITE PROGRAM." FEB. 1970.
0426

MAUM, B. W. SEE AUTHOR : MCILWAIN, C. E.
0609

MAURO, P.G. SEE AUTHOR : DUMCORSE, C.B.
0411

MAURO, P.G. "DIGITAL TONE RANGING MODEM DESIGN AND IMPLEMENTATION." MAY 1976, U.S. DEPARTMENT OF TRANSPORTATION, TRANSPORTATION SYSTEM
0549
CENTER, 40 WALL SQUARE, CAMBRIDGE, MASS. 02142, TECH. REPORT, AD-8026 888.

MAYER, MAX "CORRESPONDENCE RELATED TO A15 USE BY GERMANY." OCT 67; GERMANY.
0229

MAYMARU, L.A. "HIGH LATITUDE PERFORMANCE OF MILITARY SATELLITE COMMUNICATION SYSTEMS." COMMUNICATIONS RESEARCH CENTER, OTTAWA, CANADA
0506
, 1970.

MAYNARD, D.I. "SUMMATIVE EVALUATION OF CAREER EDUCATION IN THE SECONDARY SCHOOL COURSE; FALL, 1979. TECHNICAL REPORT NUMBER ELEVEN." SE
0760
PIEMBER 1975, RESOURCE COORDINATING CENTER, UNIVERSITY OF KENTUCKY, LEXINGTON, KENTUCKY, TECHNICAL REPORT, ED 116 635.

MAYNARD, D.I. SEE AUTHOR : BRAMBLE, W.J.
0761

MAYO, J. SEE AUTHOR : BLACK, C.
0826

HAZAR, W.E., JR.
U489 "SUBMICROSECOND TIME SYNCHRONIZATION OF GROUND STATIONS VIA THE APPLICATIONS TECHNOLOGY SATELLITES." NASA - GSFC. APRIL 1971.

MCCAM
U164 "DEPARTMENT OF HEALTH, EDUCATION AND WELFARE APPLICATION TECHNOLOGY SATELLITE VERY HIGH FREQUENCY EXPERIMENT PLAN." NA
U71. NEW/STATE OF ALASKA EXPERIMENTS, PROPOSAL.

MCCMET, P.J.
U987 "APPLICATIONS TECHNOLOGY SATELLITE PROGRAM." SEPTEMBER 1977, NATIONAL AERONAUTICS AND SPACE ADMINISTRATION, WASHINGTON.
OC. 2US46, JOURNAL ARTICLE.

MCCUNE, R.W.
U616 "MARITIME SATELLITE COMMUNICATIONS: TERMINAL IMPLEMENTATION." NOV 1975, INTERNATIONAL CONFERENCE ON DIGITAL SATELLITE COMMUNIC
CATIONS, KYOTO, JAPAN, PAPER, T6A 27676.

MCCUNICH, F.L.
U432 SEE AUTHOR : VANHEM, C.M.

MCCOY, I.
U730 SEE AUTHOR : BARNER, G.

MCDONNELL-DOUGLAS
U086 SEE AUTHOR : OLSON, W.P.

MCEWAN, M.J.
U956 "SATELLITE PAIN ATTENUATION AT 20 GHz COMPARED WITH 9.4 GHz RADAR MEASUREMENTS." OCT 1977, UNIVERSITY OF BRADFORD, BRAD
FORU, UK, TECHNICAL REPORT, M151 M70-15337.

MCLAM, M.J.
U969 SEE AUTHOR : WATSON, P.A.

MCELL, C.E.
U888 SEE AUTHOR : CHENEY, L.A.

MCGRAW, B.
U559 "TOWARD THE PUBLIC DIVIDEND: A REPORT ON SATELLITE TELECOMMUNICATIONS." 1977, THE PUBLIC INTEREST SATELLITE ASSOCIATION, 5
5 WEST 94TH STREET, NEW YORK, NEW YORK 10036, TECHNICAL REPORT.

MCLWAIN, C.E.
U889 "A15-6 VESD AURORA PARTICLES EXPERIMENT." NOVEMBER 1975, DEPT OF PHYSICS, UNIV OF CALIFORNIA AT SAN DIEGO, LA JOLLA, C
A. JOURNAL ARTICLE.

MCLWAIN, C.E.
U088 SEE AUTHOR : DEFOREST, S.E.

MCINTIRE, I.
U942 SEE AUTHOR : WILKE, J.L.

MCINTIRE, I.
U588 SEE AUTHOR : BAIRD, G.

MCMAHON, J.
U534 "FIRST YEAR MEDICAL USER DEMONSTRATIONS, 12TH PACIFIC LIBRARY CONFERENCES, 13TH MEDICAL TRANSMISSION TESTS." JAN 1973, P
FACE SAT PROJECT, COMMUNICATION PROGRAM, UNIVERSITY OF HAWAII, HONOLULU, HAWAII 96822, TECHNICAL REPORT, PB-223 030, MIN 71-9706.

MCMECHAN, P. "TEACHING BY SATELLITE: PACIFIC ISLANDS JOIN IN EXPERIMENTAL PROJECT." 1975, UNIVERSITY OF THE SOUTH PACIFIC, SUVA, FIJ
0310
1.

MCMECHAN, P. SEE AUTHOR : BENSTEAD, G.
0311

MCNAMARA, B.C. SEE AUTHOR : HOUSE, A.M.
0005

MCNAMARA, B.C. SEE AUTHOR : ROBERTS, J.M.
0710

MCNEERSON, R.L. "UCLA FLUXGATE MAGNETOMETER." NOV 75, UNIVERSITY OF CALIFORNIA, LOS ANGELES, CALIFORNIA, JOURNAL ARTICLE.
0001

MCWILLIAMS JR., A.E. SEE AUTHOR : CONNOLLY, A.J.
0693

MCWILLIAMS JR., A.E. SEE AUTHOR : LONSDALE, M.C.
0715

MELCHIOR, G. SEE AUTHOR : BROWN, D.L.
0000

MENDEMHALL, M.M. "EVALUATIONS OF INTERACTIVE TELE-EDUCATION IN THE PUBLIC SERVICE COMMISSION." 5-9 SEPTEMBER 1977, PUBLIC SERVICE COMMISSI
0733 OM, OTTAWA, ONTARIO, CANADA, PAPER.

MENDEMHALL, M.M. SEE AUTHOR : RYAN, M.G.
0729

MENDEMHALL, M.M. SEE AUTHOR : RYAN, M.G.
0732

MENEGHINI, R. "REVIEW OF DATA ANALYSIS PROCEDURES FOR THE AFS-6 MILLIMETER WAVE EXPERIMENT." AUGUST 1975, NASA, GODDARD SPACE FLIGHT CE
0725 NIER, GREENBELT, MARYLAND, TECHNICAL REPORT, 76M 15330.

MERTENS, D.M. SEE AUTHOR : DAUGHERTY, D.
0925

MERTENS, D.M. "RESULTS OF APPALACHIAN EDUCATION SATELLITE PROJECT NEEDS ASSESSMENT CONFERENCES." JUN 1976, TECHNICAL REPORT.
0771

MERTENS, D.M. SEE AUTHOR : FITZPATRICK, J.L.
0919

MERTENS, D.M. "DEVELOPMENT, DELIVERY AND EVALUATION OF AESP'S VISUAL LEARNING COURSE." AUG 1977, RESOURCES COORDINATING CENTER, UNIVERS
0023 ITY OF KENTUCKY, LEXINGTON, KENTUCKY, TECHNICAL REPORT, ED 146 908.

MERTENS, D.M. "SUMMATIVE EVALUATION OF WORKSHOPS. FALL, 1977. TECHNICAL REPORT NO. 20." JUNE 78, RESOURCE COORDINATING CENTER, UNIVERS
0936 ITY OF KENTUCKY, LEXINGTON, KENTUCKY, TECHNICAL REPORT, OTHER: ED 162 655.

MERIENS, O.M. SEE AUTHOR : PERRITT, L.J.
 U936
 MERIENS, O.M. SEE AUTHOR : PERRITT, L.J.
 U937
 MERIENS, O. SEE AUTHOR : BRAMBLE, W.J.
 U759
 MESSICK, J. SEE AUTHOR : CHAN, S.
 U845
 METZGER, E. SEE AUTHOR : SUGURI, Y.
 U423
 MICHELINI, R.D. SEE AUTHOR : RAMASASTRY, J.
 U032
 MICHELINI, R.D. "VLF OBSERVATIONS OF RADIO EMISSIONS FROM GEOSTATIONARY SATELLITES." JUNE 1971, SMITHSONIAN INSTITUTION, ASTROPHYSICAL
 U983 OBSERVATORY, CAMBRIDGE, MASSACHUSETTS, 02130, PAPER, OTHER: AIAA 71A 33845.
 MILLER, J.A. "DRY AIR INTRUSION INTO A LOW-LEVEL MOIST TONGUE AS VIEWED BY ATS-3." JULY 1973, NATIONAL ENVIRONMENTAL SATELLITE SE
 U581 RVICE, KANSAS CITY, MO., JOURNAL ARTICLE, 74A 10386.
 U596 "ATS-6 TELEVISION RELAY USING SMALL TERMINALS EXPERIMENT." NOV 1975, JOURNAL ARTICLE, 76A 17906.
 MILLER, J.E. "ATS-6 SATELLITE INSTRUCTIONAL TELEVISION EXPERIMENT." NOV 1975, JOURNAL ARTICLE, 76A 17905.
 U597
 MILLER, M.R. "LIBRARY NETWORKS 1974-1975." 1974, KNOWLEDGE INDUSTRY PUBLICATIONS, INC., P.O. BOX 429, TIFFANY TONERS, WHITE PLAINS, NEW YOR
 U554 K 10002, TECH. REPORT, ED 094 762.
 MILLION "NEWS RELEASE ON ATS USE IN ALASKA." JUN 71; HEW, OFFICE OF EDUCATION, WASHINGTON, D.C., NEWSPAPER ARTICLE.
 U153
 MILLS, M. SEE AUTHOR : SOPHIANPOULOS, A.
 U207
 MILNER, P. "INTELLIGIBILITY OF VOICE TRANSMISSION THROUGH A SATELLITE RELAY SYSTEM." 1975, CBS LABORATORIES, STAMFORD, CONN., TECHNIC
 0779 AL REPORT.
 MINISTRY OF TECHNOLOGY
 U306 SEE AUTHOR : HIRST, D.
 MINISTRY OF TECHNOLOGY
 U307 SEE AUTHOR : BARNES, G. W.

MISKO, C.
U066 SEE AUTHOR : BYSTROM, J.W.

MISKO, C.
U067 SEE AUTHOR : BYSTROM, J.W.

MISKO, C.
U534 SEE AUTHOR : MCMAHON, J.

MITRA, A.P.
U411 "SPACE RESEARCH VIII : PROCEEDINGS OF THE TENTH COSPAR PLENARY MEETINGS, IMPERIAL COLLEGE OF SCIENCE AND TECHNOLOGY, LO
NDON, ENGLAND." JULY 1967.

MOLINARI, K. L.
U658 "BUOY TRACKING OF OCEAN CURRENTS." JUNE 73, AMERICAN ASTRONAUTICAL SOCIETY, ANNUAL MEETING, DALLAS, TEXAS, PAPER, 73A 30
593.

MORGAIN, E.O.
U508 SEE AUTHOR : BAIKO, G.

MORGAN, A.M.
U420 SEE AUTHOR : GATIERER, L.E.

MORGAN, R.P.
U222 "SATELLITES FOR U.S. EDUCATION: NEEDS, OPPORTUNITIES AND SYSTEMS." 1972; WASHINGTON UNIVERSITY, ST. LOUIS, MISSOURI.

MORGAN, R.P.
U012 "APPLICATIONS OF COMMUNICATIONS SATELLITES IN HIGHER EDUCATION." MAY 1976, CENTER FOR DEVELOPMENT TECHNOLOGY, WASHINGTON
UNIVERSITY, ST. LOUIS, MISSOURI, 63130, TECHNICAL REPORT, ED 134 235.

MORGAN, R.P.
U059 "LARGE SCALE EDUCATION TELECOMMUNICATIONS SYSTEMS FOR THE U.S.: AN ANALYSIS OF EDUCATIONAL NEEDS AND TECHNICAL OPPORTU
NITIES." APR 75, CENTER FOR DEVELOPMENT TECHNOLOGY, WASHINGTON UNIVERSITY, ST. LOUIS, MISSOURI, 63130, TECHNICAL MEMORANDU
M.

MORGAN, R.P.
U073 "APPLICATION OF COMMUNICATIONS SATELLITES TO EDUCATIONAL DEVELOPMENT." 1975, CENTER FOR DEVELOPMENT TECHNOLOGY, WASHING
TON UNIVERSITY, ST. LOUIS, MISSOURI 63130, TECHNICAL REPORT, BIBLIOGRAPHY, NTIS: NT5-30916, NASA: NASA-CR-143328.

MORGAN, R.P.
U753 "COMMUNICATIONS TECHNOLOGY IN THE FUTURE OF HIGHER EDUCATION IN THE UNITED STATES." NOVEMBER 1973, WASHINGTON UNIVERSITY,
CENTER FOR DEVELOPMENT TECHNOLOGY, ST. LOUIS, MISSOURI, PAPER, ED 009 664.

MORITA, Y
U134 "SATELLITE NAVIGATION STUDIES." AUG 1967, WILLOW RUN LABORATORIES, INSTITUTE OF SCIENCE AND TECHNOLOGY, UNIV. OF MICH
IGAN, ANN ARBOR, TECH. REPT., CONTRACT NO. W4SR-34-1101, IMASRI.

MOROSI, L.
U799 SEE AUTHOR : FISHER, A.D.

MORSE, M.E.
U566 "THE APPALACHIAN EDUCATIONAL SATELLITE PROGRAM: OPERATIONAL PLAN." DEC 1976, APPALACHIAN REGIONAL COMMISSION, 1666 CONNEC
TICUT AVE., N.W., WASHINGTON, D.C. 20235, OPERATIONAL PLAN.

MOISE, H.-E.
U722 "THE APPALACHIAN EDUCATION SATELLITE PROJECT - EXECUTIVE REPORT." APPALACHIAN REGIONAL COMMISSION, 1666 CONNECTICUT AVENUE
F, WASHINGTON, D.C. 20235, TECHNICAL REPORT.

MORTLOCK, C.E.
U868 SEE AUTHOR : CHERNEY, L.A.

MOSHER, B.
U718 "COMMUNICATIONS AND TRACKING RELAY EXPERIMENT." DECEMBER 1968, MOTOROLA, GOVERNMENT ELECTRONICS DIVISION, 8203 EAST MCDOW
ELL ROAD, SCOTTSDALE, ARIZONA, TECHNICAL REPORT, M69-14797.

MOTT, M.A.
U769 "PUBLIC SERVICE SATELLITE CONSORTIUM INFORMATION." 1977-1978, BIBLIOGRAPHY.

MOTZ, M.P.
U995 SEE AUTHOR : MUEGLER, G.M.

MOZER, F.S.
U081 SEE AUTHOR : BOGOTT, F.M.

MOZER, F.S.
U089 SEE AUTHOR : BOGOTT, F.M.

MURILER, E.-J.
U170 "A PRELIMINARY REPORT ON THE MARITIME MOBILE SATELLITE COMMUNICATIONS TESTS ABOARD THE S.S. SANTA LUCIA." APR 68; DEPT
OF COMMERCE, MARITIME ADMINISTRATION, WASHINGTON, D.C.

MUELLEN, E.-J.
U457 "ABSORPTION EFFECT ON VHF PROPAGATION BETWEEN SYNCHRONOUS SATELLITE AND AIRCRAFT." WESTINGHOUSE ELECTRIC CORP. BALTIMORE, MD.
U. S.C. 1970.

MUELLER, E.-J.
U476 "THE STATUS OF SATELLITE COMMUNICATION FOR THE MARITIME MOBILE SERVICES." WESTINGHOUSE ELECTRIC CORP., BALTIMORE, MD. APRIL
1969.

MURRAY, V.
U8 "CASE STUDY OF AN INSERVICE TEACHER TRAINING PROGRAMME FOR PRIMARY TEACHERS IN SCIENCE USING A MULTI-MEDIA PACKAGE IN S
TIE." 1977, JOURNAL ARTICLE.

MULLEN, L.G.
U925 SEE AUTHOR : GARNETT, H.B.

MULLEN, J.P.
U430 SEE AUTHOR : AARONS, J.

MULLEN, J.P.
U501 SEE AUTHOR : AARONS, J.

MULLENS, J.P.
U444 "VHF ATMOSPHERIC STUDIES AND COMMUNICATIONS AND NAVIGATION SYSTEMS." ADVISORY GROUP FOR AEROSPACE RESEARCH AND DEVELOP
MENT, PARIS, FRANCE. AUG. 1969

MURINO, C.
U109 SEE AUTHOR : FUJITA, T.

MURPHY, I.P. "FEDERAL REGULATORY POLICY AND COMMUNICATIONS SATELLITES; INVESTING THE SOCIAL DIVIDEND." OCT 1972, UNIVERSITY OF MARY
LAND, COLLEGE PARK, MARYLAND, JOURNAL ARTICLE *** THE AMERICAN JOURNAL OF ECONOMICS AND SOCIOLOGY, VOL. 31, NO. 4, PP. 337

MURRAY, C.W., JR.
U603 "RECOVERY OF ATMOSPHERIC REFRACTIVITY PROFILES FROM SIMULATED SATELLITE-TO-SATELLITE TRACKING DATA." JUNE 1975, GODDARD
SPACE FLIGHT CENTER, GREENBELT, MARYLAND, TECHNICAL MEMORANDUM, NTIS: N76-12563, NASA: NASA-IN-X-71016, X-932-75-168.

MYERS, C.G.
U673 SEE AUTHOR : GOODMAN, J.M.

NACE, D.
U985 SEE AUTHOR : MARUSCHAK, J.

NARASOHE, E.
U698 SEE AUTHOR : POMALAZA, J.

NASA
0166 SEE AUTHOR : SHAPLEY, W.M.

NASA
U981 "SUMMARY OF U.K. EXPERIMENTS CONDUCTED WITH ATS-3." MINUTES, GROUND STATION COMMUNICATION MEETING, LONDON, ENGLAND, APR
IL 1970.

NASA
U982 "REPORT ON TELECOMMUNICATIONS IN FRANCE." MINUTES, GROUND STATION COMMITTEE MEETING, LONDON, ENGLAND, APRIL 1970.

NASA
U504 SEE AUTHOR : STAFF NASA & FAIRCHILD INDUSTRIES

NASA
U505 SEE AUTHOR : STAFF NASA & FAIRCHILD INDUSTRIES

NASA
U506 SEE AUTHOR : STAFF NASA & FAIRCHILD INDUSTRIES

NASA/AMLS RESEARCH CENTER, SPACECRAFT DATA SYSTEMS BRANCH
0005 SEE AUTHOR : KELLER, C.H.

NASA/AMES RESEARCH CENTER, SPACECRAFT DATA SYSTEMS BRANCH
U160 SEE AUTHOR : KELLER, C.H.

NASA/ESSA
U248 "EXECUTIVE SUMMARY OF 'NASA/ESSA HYDROLOGICAL COMMUNICATIONS EXPERIMENT'." OCT 68, NASA/ESSA, TECH. MEMO.

NASA/GODDARD SPACE FLIGHT CENTER
U001 "APPLICATIONS TECHNOLOGY SATELLITES: A CONTINUING BIBLIOGRAPHY WITH INDEXES (NASA)." MAR 1972, NASA, GODDARD SPACE FLIG
HT CENTER, BIBLIOGRAPHY, NASA-IN-X-65871.

NASA/GODDARD SPACE FLIGHT CENTER
U004 SEE AUTHOR : SMITH, W.S.

NASA/GODDARD SPACE FLIGHT CENTER, OFFICE OF SPACE SCIENCE AND APPLICATION
0045 SEE AUTHOR : STANFORD UNIVERSITY

NASA/GODDARD SPACE FLIGHT CENTER
SEE AUTHOR : SKILLMAN, I.L.

NASA/GODDARD SPACE FLIGHT CENTER
SEE AUTHOR : BUTLER, M.I.

NASA/GODDARD SPACE FLIGHT CENTER
SEE AUTHOR : SUMMERS, W.S.

NASA/GODDARD SPACE FLIGHT CENTER
SEE AUTHOR : DRUMMOND, R.R.

NASA/GODDARD SPACE FLIGHT CENTER
SEE AUTHOR : ROSENBERG, J.D.

NASA/GODDARD SPACE FLIGHT CENTER
SEE AUTHOR : MARSTEN, R.D.

NASA/GODDARD SPACE FLIGHT CENTER
SEE AUTHOR : CSC

NASA/GODDARD SPACE FLIGHT CENTER
SEE AUTHOR : MORSE, W.

NASA/GODDARD SPACE FLIGHT CENTER
SEE AUTHOR : UNKNOWN

NASA/GODDARD SPACE FLIGHT CENTER
SEE AUTHOR : IPPOLITO, L.J.

NASA/GODDARD SPACE FLIGHT CENTER
"SYNCHRON ENGINEERING REPORT", VOLUME 1, NASA DOC. NO. X-621-69-167, NASA.

NASA/GODDARD SPACE FLIGHT CENTER
"OPTIC EXPERIMENT", GSFC REPORT NO. X-733-67-266, JUNE 1967.

NASA/GODDARD SPACE FLIGHT CENTER
"WORLDWIDE WAVE SATELLITE SCINTILLATION/FADING TESTS: AIS PROJECT", APR. 1970.

NASA/GODDARD SPACE FLIGHT CENTER
"SMF COMMUNICATIONS SYSTEM PERFORMANCE ON AIS, VOLUME 2, DATA AND ANALYSIS", AUG. 1970.

NASA/GODDARD SPACE FLIGHT CENTER
"WILLIAMS-MAVE PROPAGATION EXPERIMENTS UTILIZING THE AIS-5 SATELLITE", NOV. 1970.

NASA/LEIS RESEARCH CENTER, CLEVELAND, OHIO
COMMUNICATIONS TECHNOLOGY SATELLITE UNITED STATES USERS MEETING #21, DEC 14 1970, NASA, LEIS RESEARCH CENTER, CLEVELAND, OHIO, 44135, INDEX OF USERS.

NASA, INTERNATIONAL PLANNING AND PROGRAMS
SEE AUTHOR : BARNES, J.H.

NASA, SCIENTIFIC ACTIVITIES FOR LIFE SCIENCES.
SEE AUTHOR : WHITE, S.C.

NASA, WASH. D.C.
0035 "COMMUNICATIONS SATELLITES." 1966.

NASA, WASHINGTON, D.C.
0028 SEE AUTHOR : MATHEWS, C.W.

NASH, J.F.
0785 SEE AUTHOR : ENGLER, M.A.

NASH, J.F.
0786 SEE AUTHOR : ENGLER, M.A.

NASH, J.F.
0787 SEE AUTHOR : ENGLER, M.A.

NATIONAL ACADEMY OF SCIENCES
0440 "USEFUL APPLICATIONS OF EARTH-ORIENTED SATELLITES - METEOROLOGY." NATIONAL RESEARCH COUNCIL, WASH. D.C. 1969.

NATIONAL AVIATION FACILITIES EXPERIMENTAL CENTER
0289 SEE AUTHOR : JEFFERSON, F. W.

NATIONAL BUREAU OF STANDARDS
0019 SEE AUTHOR : HANSON, D.W.

NATIONAL BUREAU OF STANDARDS
0047 SEE AUTHOR : HANSON, D.W.

NATIONAL BUREAU OF STANDARDS
0199 SEE AUTHOR : HANSON, D.W.

NATIONAL BUREAU OF STANDARDS
0200 SEE AUTHOR : HANSON, D.W.

NATIONAL BUREAU OF STANDARDS
0249 "EXECUTIVE SUMMARY OF 'PRECISE TIME TRANSFERS TO REMOTE LOCATIONS VIA VMF SATELLITE TRANSPONDER'." MAY 67, SATELLITE T
REGULATION DIVISION, COAST AND GEODETIC SURVEY, NATIONAL BUREAU OF STANDARDS, BOULDER, COLORADO, TECH.MEMO.

NATIONAL BUREAU OF STANDARDS
0250 SEE AUTHOR : HANSON, D.W.

NATIONAL BUREAU OF STANDARDS
0765 SEE AUTHOR : HANSON, D. W.

NATIONAL CENTER FOR ATMOSPHERIC RESEARCH
0100 SEE AUTHOR : ZIPSER, E.J.

NATIONAL CENTER FOR ATMOSPHERIC RESEARCH
0177 SEE AUTHOR : REA, D.F.

NATIONAL CENTER FOR ATMOSPHERIC RESEARCH
0193 SEE AUTHOR : REA, D.F.

NATIONAL CENTER FOR ATMOSPHERIC RESEARCH
0283 SEE AUTHOR : ZIPSER, E. J.

NATIONAL CENTER FOR ATMOSPHERIC RESEARCH
0284 SEE AUTHOR : ZIPSER, E. J.

NATIONAL EDUCATION ASSOCIATION
0286 SEE AUTHOR : WIGGEM, H. E.

NATIONAL ENVIRONMENTAL SCIENCE CENTER
U110 SEE AUTHOR : LEESE, J.A.

NATIONAL ENVIRONMENTAL SATELLITE CENTER
U446 "SATELLITE AND SENSORS FLOWN IN ORBIT, APPENDIX A." WASH. D. C. , JUL. 1970.

NATIONAL HURRICANE RESEARCH LABORATORY
U105 SEE AUTHOR : FUJITA, T.T.

NATIONAL INSTITUTE OF EDUCATION
U253 SEE AUTHOR : KING, KENNETH L.

NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION
U071 SEE AUTHOR : LEESE, J.A.

NATIONAL PUBLIC RADIO, INC.
U046 SEE AUTHOR : QUAYLE, D.R.

NATIONAL PUBLIC RADIO
U123 SEE AUTHOR : QUAYLE, D.R.

NATIONAL SCIENTIFIC LABORATORIES, INC.
U041 SEE AUTHOR : WELLMER, J.J.

NATIONAL SCIENTIFIC LABS, INC.
U134 SEE AUTHOR : WELLMER, J.J.

NATIONAL SCIENTIFIC LABS, INC.
U136 SEE AUTHOR : WELLMER, J.J.

NAVSAF SYSTEMS INC.
U207 SEE AUTHOR : SHAPLEY, W.M.

NESS SATELLITE FIELD SERVICES STATION
U069 SEE AUTHOR : GABY, D.C.

NETHERLANDS POSTAL AND TELECOMMUNICATIONS SERVICES
U284 "EXECUTIVE SUMMARY OF 'RESULTS OF MARITIME SATELLITE COMMUNICATIONS TESTS USING THE ATS-3'." FEB 73, NETHERLANDS POSTAL AND TELECOMMUNICATIONS SERVICES, TECH. MEMO.

NETHERLANDS PTT
U048 "REPORT ON COMMUNICATIONS TESTS AMONG MOJAVE (NASA), KOOIJUM (NETHERLANDS) AND TWO SHIPS NIEUW AMSTERDAM AND ATLANTIC (KNOWN USING ATS-3 SATELLITE)." FEB 1971, NETHERLANDS PTT, TECH. REPT.

NEWMAN, W.S.
U411 SEE AUTHOR : MITRA, A.P.

NICE, A.W.
U512 SEE AUTHOR : NEWMAN, J.G.

MICHAELS, G.B.
U461 "THE MILLIMETER WAVE PROPAGATION EXPERIMENT FOR THE ATS-E SPACECRAFT." NASA - GSFC. NOV. 1966.

MINOMIYA, K.
U108 "METEOROLOGICAL SATELLITE STUDY ON THE DEVELOPMENT OF TORNADO-PRODUCING THUNDERSTORMS." 1969, UNIVERSITY OF CHICAGO, ILL. REPT., AMERICAN METEOROLOGICAL SOCIETY.

MINOMITA, K. "DYNAMICAL ANALYSIS OF OUTFLOW FROM TORNADO-PRODUCING THUNDERSTORMS AS REVEALED BY AIS-3 PICTURES." DEC 1969; UNIVERSITY OF CHICAGO, DEPT. OF GEOPHYSICAL SCIENCES, CHICAGO, ILLINOIS.

MITTA, I. "HEAT AND MOISTURE BUDGET ANALYSES USING OMEX DATA." JAN 1974, DEPARTMENT OF METEOROLOGY, UNIVERSITY OF CALIFORNIA, LOS ANGELES, CALIFORNIA 90024, JOURNAL ARTICLE, 7NA 26007.

MOCERINO, J. I. SEE AUTHOR : O'NEILL, J. J.

MORDEBERG, W. "CORRESPONDENCE CONCERN JOINT US/USSR BERING SEA EXPERIMENT." 1972; NASA, GSFC, GREENBELT, MARYLAND.

MORTHCOTE, D. SEE AUTHOR : BENSTEAD, G.

NORTHERN ELECTRIC CO. LTD. "REPORT ON PATTERN AND RECEPTION CHARACTERISTICS RECORDED USING AIS-3 IN CONJUNCTION WITH AN EXPERIMENTAL EARTH STATION AT CRYSTAL BEACH, OTTAWA, ONTARIO, CANADA." MINUTES, GROUND STATION COMMITTEE MEETING, LONDON, ENGLAND, MAY 1970.

NORTHERN ILLUSTRATION, INC. SEE AUTHOR : HIEBERT, A. G.

NORTHROP, C. M. "BUILDING HISTORY": COMMUNICATIONS TECHNOLOGY AS A CULTURAL TOOL EDUCATIONAL USES OF THE AIS-6 SATELLITE IN ALASKA. "JULY 75, AMERICAN INSTITUTE OF AERONAUTICS AND ASTRONAUTICS, CONFERENCE ON COMMUNICATION SATELLITES FOR HEALTH/EDUCATION AND

NORTHROP, C. M. SEE AUTHOR : BUCK, C. L.

NORTHROP, C. M. SEE AUTHOR : BUCK, C. L.

NORTHROP, C. M. SEE AUTHOR : BUCK, C. L.

NORTHROP, C. M. "CORRESPONDENCE ON THE HAWAII-ALASKA CLASSROOM EXCHANGE PROGRAM." APR 73, SATELLITE EXPERIMENT COORDINATOR, STATE OF ALASKA, CORRESPONDENCE.

NORTHROP, C. M. "CORRESPONDENCE IN REGARD TO INSTALLATION OF AIS-F GROUND STATIONS IN ALASKA." JUN 73, OFFICE OF THE GOVERNOR, STATE OF ALASKA, CORRESPONDENCE.

NORTHROP, C. M. SEE AUTHOR : HIEBERT, A. G.

NORWOOD, F. W. "EVALUATION OF 1973 PEACESAT PROPOSAL AND REPORT." OCT 73; JCEI, WASHINGTON, DC, (NASAT).

NORWOOD, F. W. SEE AUTHOR : BURKE, J. R.

NORWOOD, F.W. "COMMUNICATION SATELLITES FOR PUBLIC SERVICE." OCT 1977, PUBLIC SERVICE SATELLITE CONSORTIUM, SAN DIEGO, CA, SYMPOSIUM PRESENTATION, AIAA:87-51387.

NORWOOD, F.W. "SATELLITES FOR PUBLIC SERVICE--BARRIERS TO TECHNOLOGY TRANSFER." SEPT. 1979, FRANK W. NORWOOD, JOINT COUNCIL ON EDUCATIONAL TELECOMMUNICATIONS, 1126 SIXTEENTH STREET, N.W., WASHINGTON, D.C. 20036, SYMPOSIUM PRESENTATION, AIAA: 87-53395.

NORWOOD, FRANK W.
0919 "BROADCAST SATELLITE: 'APPROPRIATE TECHNOLOGY' AVAILABLE NOW." WINTER 78, EXCHANGE, JOURNAL ARTICLE.

MOSE, R.
0012 SEE AUTHOR : BYSTROM, J.W.

MOSE, R.
0093 SEE AUTHOR : BYSTROM, J.W.

NOVAK, C.S.
0071 SEE AUTHOR : LEESE, J.A.

NUNNALLY, M.
0029 SEE AUTHOR : KAHN, A.

NUSPL, P.P.
0921 SEE AUTHOR : BROWN, K.E.

O'FOGHLUIMA, F.
0055 "PRELIMINARY EVALUATION OF THE RESULTS OBTAINED DURING THE X-RAY TRANSMISSION EXPERIMENT." JAN 1972, DUME UNIVERSITY MEDICAL CENTER, RADIATION PHYSICS DIVISION, DURNAN, NORTH CAROLINA. CORRESPONDENCE, (NASA/65FC) TECHNICAL UTILIZATION PROGRAM

O'FOGHLUIMA, F.
0016 SEE AUTHOR : LESTER, R.G.

O'MELL, J.J.
0724 "BENEFITS AND PROBLEMS OF SEVEN EXPLORATORY TELEMEDICINE PROJECTS." FEBRUARY 1975, THE MITRE CORPORATION, 1820 DOLLEY ROAD, SONY BLVD., MCLEEN, VIRGINIA 22101, TECHNICAL REPORT, PB 247 840, NTR-6787.

ODLAND, G. F.
0051 "THE FEASIBILITY OF DERMATOLOGIC CONSULTATION TO REMOTE AREAS VIA 2-WAY COLOR SATELLITE TRANSMISSION." JULY 75, AMERICAN INSTITUTE OF AERONAUTICS AND ASTRONAUTICS, CONFERENCE ON COMMUNICATION SATELLITES FOR HEALTH/EDUCATION APPLICATIONS, DENVER

OGDEN, GAIL
0509 SEE AUTHOR : BOOR, JOHN L.

OGLETHREE, S.I.
0803 SEE AUTHOR : TAYLOR, D.P.

OHAN, B.-J.
0534 SEE AUTHOR : MCMAHON, J.

OLSON, W.P.
0186 "COMPARISON OF THE PREDICTED AND OBSERVED MAGNETIC FIELD AT AFS-1." DEC 1970, McDONNELL-DOUGLAS AERONAUTICS COMPANY-WEST, HUNTINGTON BEACH, CALIFORNIA, GRABLING COLLEGE, LOUISIANA, JOURNAL ARTICLE, 600 JOURNAL OF GEOPHYSICAL RESEARCH, VOL

ORIM,B.
0735
"FACTS: LUTHER LEAGUE NEWSPAPER." JUNE 1977, GLOBAL COMMUNICATIONS PROJECT, REV. DOUGLAS MILLAR, BOX 275, MUILAND, N.D. 58067
NEWSPAPER ARTICLE.

ORVIN, J.M.
0832
SEE AUTHOR : FILEP, R.I.

ORVIN, J.M.
0950
"THE SOCIAL AND BEHAVIORAL EFFECTS OF BROADCAST TELEVISION ON PREVIOUSLY UNTOUCHED AUDIENCES." AUG 78, CENTER FOR MORRINE
AN EDUCATIONAL RESEARCH, UNIVERSITY OF ALASKA, FAIRBANKS, ALASKA, TECHNICAL REPORT, ERIC: ED 169 904.

ORVIN, J.M.
0539
SEE AUTHOR : PITMAN, I.S.

OVERSHIELT, W.P.
0990
SEE AUTHOR : BOSTIAM, C.W.

OVERSHIELT, W.P.
0991
SEE AUTHOR : BOSTIAM, C.W.

PADEL, S.W.
0058
SEE AUTHOR : SAVAGE, D.C.

PAGE, D.E.
0428
"INTERCORRELATED SATELLITE OBSERVATIONS RELATED TO SOLAR EVENTS; EUROPEAN SPACE RESEARCH ORGANIZATION, SYMPOSIUM." ESRD
MOONHUIJER, NETHERLANDS. SEPT. 1969.

PAGHIS, I.
0792
AL REPORT.
"HERMES (THE COMMUNICATIONS TECHNOLOGY SATELLITE) ITS PERFORMANCE AND APPLICATION. VOLUMES 1,2, AND 3." DEC 1977, TECHNIC

PAL, Y.
0509
27.
"SOME EXPERIENCES IN PREPARING FOR A SATELLITE TELEVISION EXPERIMENT FOR RURAL INDIA." OCT 1975, JOURNAL ARTICLE, 75A 973

PALMER, J.D.
0557
SEE AUTHOR : CARU, M.L.

PANNO, W.P.
0946
"THE IMPACT OF COMMUNICATIONS TECHNOLOGIES DESIGNED TO SUBSTITUTE FOR TRAVEL ON SCIENTIFIC AND TECHNICAL COMMUNICATIONS
". JUNE 77, STANFORD RESEARCH INSTITUTE INTERNATIONAL, TELECOMMUNICATIONS SCIENCE CENTER, 333 RAVENS WOOD AVENUE, MENLO PAR

PANI, M.
0983
"UTILIZATION OF SINGLE SPACECRAFT TRANSPONDER FOR TWO VIDEO CHANNELS." FEBRUARY 1978, INDIAN SPACE RESEARCH ORGANIZATION
N. SPACE APPLICATIONS CENTER, AHMEDABAD, INDIA, JOURNAL ARTICLE, OTHER: AIAA 78A 39573.

PAPAT, J.P.
0078
1973, ACADEMY FOR EDUCATIONAL DEVELOPMENT, JOURNAL ARTICLE *** EDUCATIONAL TECHNOLOGY, VOL. 13, NO. 4, PP 39-43, APR 1973.
"THE EDUCATIONAL POTENTIAL OF BROADCAST SATELLITE TECHNOLOGY: AN OVERVIEW OF SOME PRESENT AND FUTURE ACTIVITIES." APR

PAQUETTE, C.A.
0649
SEE AUTHOR : DUNLAN, R.A.

PANDEUS, A.F.
0466
"VHF SATELLITE FOR MARINE COMMUNICATION." COMMUNICATIONS COMPANY INC., CORAL GABLES, FLA. MAY 1967.

PARENT, R.-J.
 0103 SEE AUTHOR : SUOMI, V.-E.

PARNER, L.-B.
 0162 "QUARTERLY PROGRESS REPORT: EVALUATION OF MEDICAL COMMUNICATION BY ATS-1 SATELLITE." AUG 73, STANFORD UNIVERSITY, PRO
 6. REPT.

PARNER, L.-B.
 0163 "CORRESPONDENCE IN REGARD TO FILM ENTITLED 'SATELLITE HOUSE CALL'." JUL 73, INSTITUTE FOR COMMUNICATION RESEARCH, STAM
 FORD UNIVERSITY, CORRESPONDENCE.

PARNER, L.-B.
 0579 SEE AUTHOR : FOOTE, D.-R.

PARNER, W.-B.
 0099 "VILLAGE SATELLITE II: THE SECOND EVALUATION OF SOME EDUCATIONAL USES OF ATS-1 SATELLITE EDUCATIONAL BROADCASTING IN AL
 ASKA." JUL 1973, TECH. REPT. IANCHORAGE, ALASKA).

PARNER, W.-B.
 0190 "AN EVALUATION OF SOME EDUCATIONAL USES OF ATS-1 IN ALASKA." JUL 72, ACTION STUDY OF EDUCATIONAL USES OF SATELLITE COM
 MUNICATIONS IN REMOTE ALASKAN COMMUNITIES, ANCHORAGE, ALASKA, PROGRESS REPORT.

PARNER, W.-B.
 0199 "INTERIM EVALUATION REPORT: PHASE I." JAN 72, ACTION STUDY OF EDUCATIONAL USES OF SATELLITE COMMUNICATIONS IN REMOTE
 ALASKAN COMMUNITIES, ANCHORAGE, ALASKA, PROGRESS REPORT.

PARNESS, J.-H.
 0099 SEE AUTHOR : DUNLAN, R.-A.

PATEL, V.-L.
 0090 "SUDDEN IMPULSES IN THE MAGNETOSPHERE OBSERVED AT SYNCHRONOUS ORBIT." DEC 1970, UNIVERSITY OF CALIFORNIA AT LOS ANGELE
 S. JOURNAL ARTICLE, *** JOURNAL OF GEOPHYSICAL RESEARCH, VOL. 75, NO. 34, PP. 7255-7260, DEC 1970 ***.

PAULSON, C.-V.
 0776 SEE AUTHOR : WILSON, S.-G.

PAULSON, C.-V.
 0778 SEE AUTHOR : THOMPSON, A.-D.

PAULSON, C.-V.
 0552 SEE AUTHOR : SCHWOEDER, E.-H.

PAULSON, G.-A.
 0087 "ATS-6 EMERGETIC PARTICLE RADIATION MEASUREMENT AT SYNCHRONOUS ALTITUDE." NOVEMBER 1975, SPACE PHYSICS LABORATORY, THE
 REMOSPALE CORP, EL SEGUNDO, CA, JOURNAL ARTICLE.

PEARCESA
 0053 SEE AUTHOR : BYSIROM, J.-M.

PEARCESA
 0211 SEE AUTHOR : BYSIROM, J.-M.

PEARCESA
 0214 SEE AUTHOR : BYSIROM, J.-M.

PEACESAT
U215

SEE AUTHOR : BYSTROM, J.W.

PEACESAT
U216

SEE AUTHOR : BYSTROM, J.W.

PEACESAT
U217

SEE AUTHOR : BYSTROM, J.W.

PEACESAT
U218

SEE AUTHOR : HAWLEY, ANTHONY

PEACESAT
U219

SEE AUTHOR : UNKNOWN

PEACESAT
U220

SEE AUTHOR : BYSTROM, J.W.

PEARCE, S.C.
U542

SEE AUTHOR : GABY, D.C.

PEARL, L.W.
U501

SEE AUTHOR : FUJITA, T.T.

PERKINS, J.R.
U519
CH. REPORT.

"TELECOMMUNICATIONS TECHNOLOGY AND RURAL EDUCATION IN THE UNITED STATES." MAR 1975. WASHINGTON UNIVERSITY, ST. LOUIS, MO., 1E

PERRETT, L.J.
U934

SEE AUTHOR : MERIENS, D.M.

PERRETT, L.J.
U936

"SUMMATIVE EVALUATION OF WORKSHOPS. SUMMER, 1977. TECHNICAL REPORT NO. 18." DEC 77, RESOURCE COORDINATING CENTER, UNIVERSITY OF KENTUCKY, LEXINGTON, KENTUCKY, TECHNICAL REPORT, OTHER: ED 162 609.

PERRETT, L.J.
U937

"SUMMATIVE EVALUATION OF WORKSHOPS: SPRING, 1978. TECHNICAL REPORT NO. 23." NOV 78, RESOURCE COORDINATING CENTER, UNIVERSITY OF KENTUCKY, LEXINGTON, KENTUCKY, TECHNICAL REPORT, OTHER: ED 165 811.

PERSINGER, P.R.
U990

SEE AUTHOR : BOSTIAN, C.W.

PERSINGER, P.R.
U991

SEE AUTHOR : BOSTIAN, C.W.

PETERSON, R.W.
U209

"REQUEST FOR A1S-1 TIME FOR CONJUGATE AURAL STUDIES." JUN 70; UNIV. OF CALIF., LOS ALAMOS SCIENTIFIC LABORATORY, LOS ALAMOS, NEW MEXICO.

PELTY, C.A.
U013

"NASA A1S VHF EXPERIMENT: AIRINC/AIRLINES SATCOM PROGRAM--REPORT OF THE SATELLITE COMMUNICATIONS TRIALS WITH THE BOEING 747 AIRCRAFT." 1970, AERONAUTICAL RADIO, INC. (ARINC) ANNAPOLIS, MARYLAND, WITH BOEING AIRCRAFT CO., GENERAL ELECTRIC CO.,

PELTY, C.A.
U241

"RECURSIVE SUMMARY OF 'REPORT ON AIRINC/AIRLINE INDUSTRY TESTS'." MAR 68, AERONAUTICAL RADIO, INC., TECH. MEMO.

PFAFF, L.
 0912 "DISTANT TEACHING." WINTER 78, UNIVERSITY OF THE SOUTH PACIFIC, JOURNAL ARTICLE.

PFIZER, M.A.
 0690 SEE AUTHOR : MASLEY, A.J.
 PICAPOSTE OPERATION
 0003 SEE AUTHOR : GARCIA, M.M.

PIERCE, J.M.
 0237 "LETTERS REGARDING ATS-5 MILLIMETER-WAVE EXPERIMENT." MAY 68; BELL LABS. MURRAY HILL, N.J.

PIRE, A.C.
 0542 SEE AUTHOR : GABY, D.C.

PITTMAN, J.S.
 0147 "BACKGROUND AND JUSTIFICATION FOR ATS-3 CONTINUATION REQUEST." SEP 72, ACTION-STUDY SATELLITE PROJECT, FAIRBANKS, ALAS
 NA, PROPOSAL.

PITTMAN, J.S.
 0539 "ATS-6 AND STATE TELECOMMUNICATIONS, POLICY FOR RURAL ALASKA." DECEMBER 1976, CENTER FOR NORTHERN EDUCATIONAL RESEARCH, UNI
 VERSITY OF ALASKA, FAIRBANKS, ALASKA, TECHNICAL REPORT.

POLCTM, M.A.
 0077 "FUTURE UNITED STATES EDUCATIONAL BROADCAST SATELLITE EXPERIMENTS: THE APPALACHIAN REGION EXPERIMENT." MAY 1979, INFOR
 MATION SCIENCES COMPANY, PLANNING RESEARCH CORPORATION, COMMUNICATION SATELLITE APPLICATIONS, MCLEAN, VIRGINIA, JOURNAL AR

POLCTM, M.A.
 0078 SEE AUTHOR : PAPAT, J.P.

POLCTM, M.A.
 0079 "FUTURE UNITED STATES EDUCATIONAL BROADCAST SATELLITE EXPERIMENTS: THE ROCKY MOUNTAIN REGION EXPERIMENT." AUG 1973, AC
 ADEMY FOR EDUCATIONAL DEVELOPMENT, INC., JOURNAL ARTICLE, U.S. AGENCY FOR INTERNATIONAL DEVELOPMENT, *** EDUCATIONAL TECH

POLCTM, M.A.
 0090 "FUTURE UNITED STATES EDUCATIONAL BROADCAST SATELLITE EXPERIMENTS: THE STATE OF ALASKA." JAN 1979, INFORMATION SCIENC
 ES INC, WASHINGTON, D.C., JOURNAL ARTICLE, *** EDUCATIONAL TECHNOLOGY, VOL 14, NO. 1, PP 27-31, JAN 1979 ***.

POLCTM, M.A.
 0255 "THE JOINT UNITED STATES-INDIA EDUCATIONAL BROADCAST SATELLITE EXPERIMENT." JUNE 72, ACADEMY FOR EDUCATIONAL DEVELOPMENT
 , INC., JOURNAL ARTICLE, *** EDUCATIONAL TECHNOLOGY, PP 14-17, JUN 72.

POLCTM, M.A.
 0256 "THE PROPOSED BRAZILIAN EDUCATIONAL SATELLITE EXPERIMENT." JUN 72, ACADEMY FOR EDUCATIONAL DEVELOPMENT, INC., JOURNAL
 ARTICLE, *** EDUCATIONAL TECHNOLOGY, PP 20-25, JUN 72.

POLCTM, M.A.
 0533 "THE PROPOSED BRAZILIAN EDUCATIONAL SATELLITE EXPERIMENT." 1972, JOURNAL ARTICLE.

POLLOCK, M.W.
L141 SEE AUTHOR : HIERBERT, A.G.

PONALAZA, J.
U496 "STUDY OF EQUATORIAL SCINTILLATION." DECEMBER, 1972, NASA GODDARD SPACE FLIGHT CENTER, GREENBELT, MARYLAND, PROGRESS REPORT.
U73-33326.

PONNAPPA, P.C.
U017 "HIGH LATITUDE SCINTILLATION MEASUREMENTS AT L-BAND AND VHF: PRELIMINARY REPORT.- APR 1972, COMMUNICATIONS RESEARCH CEN
TRL, TELECOMMUNICATIONS AND ELECTRONICS BRANCH (CANADA), PRELIMINARY TECH. REPT.

PONNAPPA, S.
U309 "L-BAND POWER SPECTRUM OF IONOSPHERIC FADING SIGNALS." NOV 1973; COMMUNICATIONS RESEARCH CENTRE, OTTAWA, CANADA.

POPPEL, R.
U570 "STUDY OF EDUCATION SATELLITE COMMUNICATIONS DEMONSTRATION IN ALASKA: SOME TENTATIVE CONCLUSIONS AND BI-MONTHLY REPORT."
JUN 1975, PRACTICAL CONCEPTS INC., 1730 RHODE ISLAND AVENUE, N.W., SUITE 200, WASHINGTON, D.C. 20036, PROGRESS REPORT, EOM

PORTER, S.
U620 "THE NATIONAL INSTITUTE OF EDUCATION'S EDUCATIONAL SATELLITE COMMUNICATIONS DEMONSTRATION: LESSONS LEARNED AND THEIR PED
GOGICAL POLICY IMPLICATIONS." APR 1976, SYRACUSE RESEARCH CORPORATION, PAPER, EOMS CO 122770.

POST OFFICE (UNITED KINGDOM)
U265 "EXECUTIVE SUMMARY OF 'UNITED KINGDOM MARITIME SATELLITE COMMUNICATION TESTS'." DEC 70, THE UNIVERSITY COLLEGE OF SWAN
SEA, THE MARCONI COMPANY, THE POST OFFICE (UNITED KINGDOM) BERNHAM-ON-SEA, ENGLAND, TECH. MEMO.

POST OFFICE (UNITED KINGDOM)
U033 SEE AUTHOR : MARCONI COMPANY

POTAT, R.O.
U069 SEE AUTHOR : GABY, D.C.

POTAT, R.O.
U542 SEE AUTHOR : GABY, D.C.

POTTER, J.
U782 "THE CONTINUING EDUCATION NETWORK." 2 NOV 1976, PUBLIC SERVICE SATELLITE CONSORTIUM, SAN DIEGO, CAL., 92123, CORRESPONDING
P.

POTTER, J.G.
U021 "SID UPLINK COMPLEX SATELLITE TECHNOLOGY DEMONSTRATION." 1975, FEDERATION OF ROCKY MOUNTAIN STATES, INC., DENVER, COLORADO
O. TECHNICAL REPORT, ED 115 230.

POTTER, J.G.
U057 SEE AUTHOR : JANAY, J.M.

POTTER, J.G.
U544 SEE AUTHOR : LUSIGMAN, D.D.

POTTER, JAMES G.
U509 SEE AUTHOR : ROOP, JOHN L.

PRATT, I.
U544 SEE AUTHOR : BROOKING, D.J.

PRATT, I. "COPOLAR ATTENUATION AND RADIONETER MEASUREMENTS AT 30 GHZ FOR A SLANT PATH TO CENTRAL ENGLAND." OCT 1977, UNIVERSITY OF BIRMINGHAM, BIRMINGHAM, UK, TECHNICAL REPORT, NTIS: N78-15336.

PRATT, I. "CROSS-POLARIZATION MEASUREMENTS AT 30 GHZ FOR A SLANT PATH TO CENTRAL UK." OCT 1977, UNIVERSITY OF BIRMINGHAM, BIRMINGHAM, UK, TECHNICAL REPORT, NTIS: N78-15344.

PRATT, I. SEE AUTHOR : BROWNING, D.J.

PRECISE TIME AND TIME INTERVAL STRATEGIC PLANNING MEETING (3RD ANNUAL).
SEE AUTHOR : HANSON, D.W.

PROJECT SEARCH
SEE AUTHOR : REED, W.L.

PROJECT SEARCH
SEE AUTHOR : ROUDABUSH, D.E.

PROJECT SEARCH
SEE AUTHOR : BYKOWSKI, RONALD F.

PROJECT SEEKSTORM
SEE AUTHOR : KLEPPE, J.A.

PROJECT SEEKSTORM
SEE AUTHOR : KLEPPE, J.A.

PROPHET, D.M. SEE AUTHOR : THOMA, G.R.

PROTOPAPA, S. "AIR TRAFFIC CONTROL EXPERIMENTATION AND EVALUATION WITH THE NASA ATS-6 SATELLITE - VOLUME 1: EXECUTIVE SUMMARY." AUGUST 1977, U.S. DEPARTMENT OF TRANSPORTATION, TRANSPORTATION SYSTEMS CENTER, MENDALL SQUARE, CAMBRIDGE, MASSACHUSETTS 02142, TECHNICAL REPORT, INDEX OF U

PROVENCHER, L.E., JR. SEE AUTHOR : MALOY, J.E.

PUBLIC SERVICE SATELLITE CONSORTIUM
"TECHNICAL ASSESSMENT OF PSSC-SUPPORTED EXPERIMENTS AND DEMONSTRATIONS FROM OCTOBER 1977 THROUGH MARCH 1978." APR 78, PUBLIC SERVICE SATELLITE CONSORTIUM, 2400 WEST 26TH AVENUE, SUITE 900, DENVER, COLORADO, 80211, TECHNICAL REPORT, INDEX OF U

PUTNEY, B.H. SEE AUTHOR : WATSON, J.S.

QUAYLE, D.W. "A REPORT TO NASA ON EXPERIMENTAL USE OF ATS-1 BY NATIONAL PUBLIC RADIO, INC." OCT 1972, TECHNICAL REPORT, NATIONAL PUBLIC RADIO, INC., WASHINGTON, D.C.

QUAYLE, D.W. "PROPOSAL FOR EXPERIMENTAL USE OF ATS." APR 71, NATIONAL PUBLIC RADIO, WASHINGTON, D.C., PROPOSAL.

REAB, M. SEE AUTHOR : EDBAUER, F.

RAAUM, A.-M.
U010 "A HISTORY OF ALASKA'S INVOLVEMENT IN EDUCATION VIA SATELLITE." APRIL 1978, RAAUM, A.-M., WALDEN UNIVERSITY, THESIS, ERI
C: 164 002.

RADIO HOLLAND
UG48 SEE AUTHOR : NETHERLANDS PTF

RADIO RESEARCH LABORATORIES
U056 "STATUS AND FUTURE PLANS OF KASHIMA GROUND STATION." JAN 1971, RADIO RESEARCH LABORATORIES, JAPAN, PROGRESS REPORT, (MIN
ISTRY OF POSTS AND TELECOMMUNICATIONS).

RADIO RESEARCH LABORATORIES
U194 SEE AUTHOR : HIRAI, MASAICHI

RADIO RESEARCH LABORATORIES
U491 "A SIGNALLING SYSTEM FOR DEMAND ASSIGNMENT COMMUNICATION SYSTEM." JAPANESE MINISTRY OF POST AND TELECOMMUNICATIONS. 197
J.

RAO'S, R.-M.
U416 "ATMOSPHERIC MEASUREMENTS FROM SATELLITES." NASA - GSFC. JAN. 1969.

RANOWSKI, W.
U060 SEE AUTHOR : CHENEY, L.A.

RAMASASTRY, J.
U032 "VLF CLOCK SYNCHRONIZATION TESTS PERFORMED VIA THE ATS-1 & ATS-3 SATELLITES." DEC 1971, NASA, GODDARD SPACE FLIGHT CEN
TER, BIBLIOGRAPHY, NASA-TN-X-65071.

RAMASASTRY, J.
U455 SEE AUTHOR : ROSENBAUM, B.

RANGASWAMY, S.
U063 SEE AUTHOR : MURRAY, C.-W., JR.

RASCHKE, E.
U424 "OBSERVATIONS OF THE REFLECTION PROPERTIES OF THE EARTH-ATMOSPHERE SYSTEM AND THE CLOUD FORMATION ABOVE THE EQUATORIAL
PACIFIC FROM A SYNCHRONOUS SATELLITE." APR. 1968.

RAVENHURST, F.-I.
U010 SEE AUTHOR : BELLM, W.-W.

RCA GLOBAL COMMUNICATIONS, INC.
U146 SEE AUTHOR : SCHNEIDER, P.

REBMAN, J.-A.
U022 "MARITIME SATELLITE NAVIGATION/COMMUNICATION PROGRAM; PHASE II-EXPERIMENT SYSTEM DEVELOPMENT AND OPERATION. MARITIME SH
IPPING USER PLAN." JUN 1972, APPLIED INFORMATION INDUSTRIES, MOORESTOWN, N.J. TECH. REPT. MAR-594-N-U001A) FOR U.S. DEPART

REISCH, W.-M.
U079 "ATS-6 DESCRIPTION." OCTOBER 1975, ELECTRONICS AND AEROSPACE SYSTEMS CONVENTION, WASHINGTON, D.C., PAPER, 76A 40675.

REISCH, W.-M.
U052 "ATS-6 DESCRIPTION AND PERFORMANCE." NOV 1975, JOURNAL ARTICLE, 76A 17902.

KEUSCH, W.M.
UC15 SEE AUTHOR : CLARK, J.F.

KELLY, W.L.
UD14 "EXPERIMENTAL PLAN FOR THE INVESTIGATION OF SATELLITE COMMUNICATION UTILITY FOR LAW ENFORCEMENT FACSIMILE AND DATA TRANSMISSION." OCT 1971, PROJECT SEARCH, CALIFORNIA CRIME TECHNOLOGICAL RESEARCH FOUNDATION, SACRAMENTO, CALIFORNIA, DESCRIPT

KELU, D.
UC43 SEE AUTHOR : WISHNA, S.

KELSEY, L.W.
U776 SEE AUTHOR : WILSON, S.G.

KELICH, J.J.
U695 "TELEMEDICINE: THE ASSESSMENT OF AN EVOLVING HEALTH CARE TECHNOLOGY." AUGUST 1974, CENTER FOR DEVELOPMENT TECHNOLOGY, WASHINGTON UNIVERSITY, ST. LOUIS, MISSOURI 63130, TECHNICAL REPORT.

KESLER, M.G.
U719 "INTELSAT V-TRANSITION TO THE SHUTTLE." JUNE 1977, AIAA, JUNE 1977, JOURNAL ARTICLE.

KEX, D.F.
U177 "OPERATIONAL LESSONS OF THE LINE ISLAND EXPERIMENT." MAY 67; NATIONAL CENTER FOR ATMOSPHERIC RESEARCH (NCAR), FACILITY FS LABORATORY, BOULDER, COLO.

KEX, D.F.
U193 "SUMMARY OF LINE ISLAND EXPERIMENT OPERATIONAL PLANNING." JAN 67, NATIONAL CENTER FOR ATMOSPHERIC RESEARCH (NCAR), FACILITY FS LABORATORY, BOULDER, COLO.

KETNOLUS, D.W.
U275 "MONTHLY PROGRESS REPORTS ON SATELLITE PROJECT." FEB-JUL 1972, UNIVERSITY OF WASHINGTON, DEPT OF ELECTRICAL ENGINEERING, SEATTLE, WASHINGTON.

KETNOLUS, D.W.
UD59 "A COMPARISON OF RADAR-DETERMINED CLOUD HEIGHT AND REFLECTED SOLAR RADIANCE MEASURED FROM THE GEOSYNCHRONOUS SATELLITE ATS-3." APR 1973, COLORADO STATE UNIVERSITY, DEPT. OF ATMOSPHERIC SCIENCE, FT. COLLINS, COLORADO, JOURNAL ARTICLE, *** JO

KETNOLUS, D.W.
US45 "SATELLITE SUPPORT TO THE HIPEX ACTIVITIES FOR 1975." DEC 1975, DEPARTMENT OF ATMOSPHERIC SCIENCE, COLORADO STATE UNIVERSITY, FT. COLLINS, COLORADO, TECH. REPORT, PB-250 563.

KICCUH, A.
UN80 "TRANSMISSIONS TO EUROPE FROM THE OLYMPICS GAMES IN MEXICO." IEEE ABSTRACTS, NOV. 1969.

KIEDER, P.F.
U777 SEE AUTHOR : THOMPSON, A.D.

KIEDER, P.F.
U778 SEE AUTHOR : THOMPSON, A.D.

KIERMIN, M.
US16 "PHS-CIS EXPERIMENTS PLAN." DECEMBER 1976, THE MITRE CORPORATION, 1820 DOLLY MADISON BLVD., MCLEAN, VIRGINIA 22101, PROPOSAL

RITCHIEY, L. W.
0628 SEE AUTHOR : JAHAY, J. M.

RIZZOLLA, L.
0789 SEE AUTHOR : EDELMAN, E. A.

ROBBINS, W. H.
0659 SEE AUTHOR : SIVO, J. N.

ROBBINS, W. H.
0748 SEE AUTHOR : DONOUGHE, P. L.

ROBERTS, J. M.
0710 "TELEMEDICINE AT MEMORIAL UNIVERSITY OF NEWFOUNDLAND." AUGUST 1977, MEMORIAL UNIVERSITY OF NEWFOUNDLAND, ST. JOHN'S, NEWFO
UNDLAND, CANADA, JOURNAL ARTICLE.

ROBERTS, J. M.
0711 SEE AUTHOR : HOUSE, A. M.

ROBINSON, B. E.
0859 SEE AUTHOR : MORGAN, R. P.

ROBINSON, D. L.
0541 "APPLICATIONS TECHNOLOGY SATELLITE ADVANCED MISSION STUDY." FAIRCHILD INDUSTRIES, SPACE AND ELECTRONIC DIVISION, GERMANTON
N, MARYLAND 20767, TECH. REPORT, CR 120873.

ROBINSON, J. J.
0641 "AERONAUTICAL SATELLITES - PROGRESS REPORT ON THE JOINT AEROSAT EVALUATION PROGRAMME." 1976, JOURNAL ARTICLE, 76A 28760.

RODGER, M.
0819 "USER RATINGS OF INSTRUCTIONAL ACTIVITIES: DIAGNOSTIC AND PRESCRIPTIVE READING INSTRUCTION, SUMMER, 1974." JUL 1975, RES
OURCES COORDINATING CENTER, UNIVERSITY OF KENTUCKY, LEXINGTON, KENTUCKY, TECHNICAL REPORT, ED 114 064.

RODGERS, E. B.
0808 SEE AUTHOR : SHENK, W. E.

ROELANDSCHAP, P. J.
0958 SEE AUTHOR : DIJK, J.

ROSENBAUM, B.
0032 SEE AUTHOR : RAMASASTRY, J.

ROSENBAUM, B.
0455 "VERY LONG BASELINE INTERFEROMETER (VLBI) EXPERIMENTS USING ATS-3 AND ATS-5 SATELLITES." NASA-GSFC. NOV. 1970.

ROSENBERG, J. D.
0135 "SUMMARIES OF ATS USER EXPERIMENTS." JAN 72; NASA, GSFC, GREENBELT, MARYLAND.

ROSENBERG, J. D.
0163 SEE AUTHOR : PARKER, E. B.

ROSENBERG, J. J.
0998 SEE AUTHOR : ARTHUR, C. W.

MOHN, E.-J. "TRANSCONTINENTAL INTERCONNECTION EXPERIMENT." NOV 1970, CORPORATION FOR PUBLIC BROADCASTING TECH. REPT. FORD FOUNDATIO
U038
N GRANT.

MOHN, E.-J. "EXECUTIVE SUMMARY OF 'TRANSCONTINENTAL INTERCONNECTION EXPERIMENT (ITE)'." NOV 70, CORPORATION FOR PUBLIC BROADCASTING
U243
G, WASHINGTON, D.C., TECH. MEMO.

MOHREBERG, D. SEE AUTHOR : MORGAN, R.P.
U859

MOUDABUSHI, D.E. "CORRESPONDENCE RELATED TO PROJECT SEARCH." 1971; CALIFORNIA CRIME TECHNOLOGICAL RESEARCH FOUNDATION, SACRAMENTO, CAL.
U172

ROYAL AIRCRAFT ESTABLISHMENT
"EXECUTIVE SUMMARY OF 'REPORT ON TESTS OF CHIRP MODULATED DATA TRANSMISSION FROM GROUND TO AIRCRAFT VIA SATELLITE AIS-3
U266
'." FEB 69, ROYAL AIRCRAFT ESTABLISHMENT, CANADA, TECH. MEMO.

ROYAL NORWEGIAN COUNCIL FOR SCIENTIFIC AND INDUSTRIAL RESEARCH (INTFI)
U029 SEE AUTHOR : HAGEN, B

ROYAL NORWEGIAN COUNCIL FOR SCIENTIFIC AND INDUSTRIAL RESEARCH.
U247 SEE AUTHOR : HAGEN, B.

KUBIN, P.A. "SATELLITES FOR EDUCATION ." HUGHES AIRCRAFT CO., EL SEGUNDO, CALIF. OCT. 1968 .
U407

RUBINSTEIN, ELLIS
"DOLLARS VS SATELLITES." OCT 1976, JOURNAL ARTICLE.
U521

RUCKER, F. SEE AUTHOR : DIMIELMANN, F.
U957

RUCKER, F. SEE AUTHOR : DIMIELMANN, F.
U963

RUCKER, F. "ANTENNA MEASUREMENTS AT 30 GHZ WITH AIS-3 FOR EXAMINATION OF THE POLARIZATION BEHAVIOUR OF THE RECEIVER AND SATELLITE
U970
ANTENNAE." OCT 1977, DEUTSCHE BUNDESPOST RESEARCH INSTITUTE, FERNMELDETECHNISCHES ZENTRALANT, DARMSTADT, GERMANY, TECHNICA

RUEGGEL, L.-J. SEE AUTHOR : EASTON, R.-L.
U617

RUSSELL, E.S. SEE AUTHOR : CAREY, L.-S.
U830

RYAN, M.G. "THE IMPACT OF THE COMMUNICATIONS TECHNOLOGY SATELLITE ON A GOVERNMENT ORGANIZATION." 29 MAY-4 JUNE 1977, EDUCATIONAL FEASI
U720
BILITY ANALYSIS SERVICES, PUBLIC SERVICE COMMISSION, GOVERNMENT OF CANADA, 1725 WOODWARD DRIVE, OTTAWA, ONTARIO, CANADA, PAPER.

RYAN, M.G. "INTERACTION - A CANADIAN THEME IN EDUCATION BY SATELLITE." 31 JULY 1976, EDUCATIONAL FEASIBILITY ANALYSIS SERVICE, STAFF
U729
DEVELOPMENT BRANCH, PUBLIC SERVICE COMMISSION, 1725 WOODWARD DRIVE, OTTAWA, ONTARIO, CANADA, PAPER.

RYAN, M.G. "CANADIAN SATELLITE EXPERIMENTS - IMPLICATIONS FOR HUMAN COMMUNICATION." 29 DECEMBER 1975, PUBLIC SERVICE COMMISSION, OT1A 0732 WA, ONTARIO, CANADA, PAPER.

KYAM, M.G. "STAFF TRAINING BY SATELLITE." MAR 1976, JOURNAL ARTICLE.

SABURI, Y. SEE AUTHOR : YAMAMOTO, M.

SALOMONSON, V.V. "GLOBE BALLOON AND ATS CLOUD MOTION COMPARISONS." OCT 1975, JOURNAL ARTICLE, 76A 10983.

SANDERSON, R.A. SEE AUTHOR : KING, S.S.

SANFORD, G.G. "STEERABLE BEAM ARRAY ANTENNA FOR USE IN ATS-6 TEST PROGRAM." MAY 1976, BALL BROS. RESEARCH CORP., P.O. BOX 1062, BOULDER, COLORADO, 80302, TECHNICAL REPORT.

SATLERBLOM, P.R. SEE AUTHOR : MASLEY, A.J.

SAVAGE, G.C. "PERFORMANCE OF MEXICO CITY-LONDON TELEVISION CHAIN USED FOR THE 1968 OLYMPICS." 1968, BRITISH BROADCASTING CORPORATION, ENGINEERING DIVISION, TECH. MEMO. DESIGNS DEPARTMENT TECHNICAL MEMORANDUM NO. 6, 811681.

SAVAGE, M. SEE AUTHOR : POPPER, H.

SCHERER, W.D. SEE AUTHOR : HUDLOW, M.D.

SCHIESL, J.W. SEE AUTHOR : FLANDERS, A.F.

SCHILLER, M.I. "BOOK REVIEW OF 'THE POLITICS AND TECHNOLOGY OF SATELLITE COMMUNICATIONS.' BY GALLOWAY, J.F. (D.C. HEATH CO. 1972)." JU 1 1973, UNIVERSITY OF CALIFORNIA, SAN DIEGO, JOURNAL ARTICLE *** JOURNALISM QUARTERLY, VOL. 50, NO. 2, PP. 390-391, VOL. 1

SCHMID, P.L. "ATS-6 SATELLITE-TO-SATELLITE TRACKING DATA RELAY EXPERIMENT." NOV 1975, NASA/GSFC, GREENBELT, MD, JOURNAL ARTICLE.

SCHMID, P.L. SEE AUTHOR : VORNUM, F.O.

SCHMID, P.L. SEE AUTHOR : VORNUM, F.O.

SCHMID, P.L. "SATELLITE-TO-SATELLITE TRACKING SYSTEM AND ORBITAL ERROR ESTIMATES." JANUARY 1976, GODDARD SPACE FLIGHT CENTER, GREENBELT, MARYLAND, 20773, TECHNICAL MEMORANDUM, NTRS: N76-22249, ORIGINATOR: TM-71093.

- SCHMIDT, P.E., JR.
0455 SEE AUTHOR : ROSENBAUM, B.
- SCHNEIDER, P.
0146 "RCA ALASKA COMMUNICATIONS EFFORT USING NASA/ATS-1." JUL 70, RCA GLOBAL COMMUNICATIONS, INC., NEW YORK, NEW YORK, PROP
0541.
- SCHNAPF, W.
0947 SEE AUTHOR : SPAIN, P.
- SCHNICK, M.W.
0431 "RESULTS OF EXPERIMENTS USING DISTANCE MEASUREMENTS OF SATELLITE ATS-3." EUROPEAN NAVIGATION INSTITUTE, MAY 1970.
- SCHROEDER, E.H.
0607 "AIR TRAFFIC CONTROL EXPERIMENTATION AND EVALUATION WITH THE NASA ATS-6 SATELLITE - VOLUME 3." SEPT. 1976, THE BOEING COM
0607 MEDICAL AIRPLANE COMPANY, P.O. BOX 3707, SEATTLE, WA. 98124, TECHNICAL REPORT, FAA-RD-75-173-3.
- SCHROEDER, E.H.
0775 SEE AUTHOR : KUO, C.J.
- SCHROEDER, E.H.
0552 "U.S. AERONAUTICAL L-BAND SATELLITE TECHNOLOGY TEST PROGRAM." JUN 1975, THE BOEING COMMERCIAL AIRPLANE COMPANY, P.O. BOX 3
707, SEATTLE, WASHINGTON 98124, PROGRESS REPORT, AD-8016 171.
- SCHROEDER, E.H.
0556 SEE AUTHOR : SUTTON, R.W.
- SCHWARZ, M.R.
0652 "ROLE OF SATELLITE BROADCAST IN REGIONAL MEDICAL EDUCATION AND HEALTH CARE DELIVERY." JULY 75, AMERICAN INSTITUTE OF AER
ONAUTICS AND ASTRONAUTICS, CONFERENCE ON SATELLITES FOR HEALTH/EDUCATION APPLICATIONS, DENVER, COLORADO, JULY 21-23, 1975,
- SCHWARZ, M.R.
0764 "IN THE NORTHWEST, IT'S WAMI." MAY 1976, JOURNAL ARTICLE, EJ 144155.
- SCHWARZ, M.K.
0714 "WAMI EXPERIMENT PLAN." 1977, WAMI, SCHOOL OF MEDICINE, UNIVERSITY OF WASHINGTON, SEATTLE, WASHINGTON, EXPERIMENT PLAN.
- SCHWARZ, M.H.
0746 SEE AUTHOR : CULLEN, T.J.
- SCOTT, R.W.
0770 "AN EXTRACT FROM THE APPALACHIAN EDUCATION SATELLITE PROGRAM PROPOSAL." OCT 1977, APPALACHIAN REGIONAL COMMISSION, 1666 C
ONNECTICUT AVE, WASHINGTON, D.C., PROPOSAL.
- SCHUPSKI, S.E.
0537 "USIS STARTING TO HOP ABOARD U.S. COMMUNICATIONS SATELLITES." OCT 1974, JOURNAL ARTICLE.
- SENGUPTA, N.
0943 SEE AUTHOR : PANI, N.
- SENEWENT, S. M.
0287 SEE AUTHOR : BLACKMER, R. H.

SERLBRENT, S.-M.
U107 "COMPARISONS OF MEASUREMENTS OF CLOUD MOTIONS." AUG 1969, STANFORD RESEARCH INSTITUTE, MENLO PARK, CALIF., TECH. REPT.
SRI PROJECT NO. 7496, CONTRACT NO. E-11-69(M) (ENVIRONMENTAL SCIENCE SERVICE ADMINISTRATION).

SERGHINI, S.-M.
U017 SEE AUTHOR : PONNAPPA, P.C.

SFISONS, W.-B.
U922 "SIMULTANEOUS L-BAND AND VHF IONOSPHERIC FADING EFFECTS AT THE GEOMAGNETIC EQUATOR." APRIL 1972, WESTINGHOUSE ELECTRIC
CORPORATION, P.O. BOX 1693, BALTIMORE, MARYLAND 21203, TECHNICAL MEMORANDUM, NTIS: WJ3-21173, NASA: NASA-TN-X-65948, OTME

SESSONS, W.-B.
U993 "AMPLITUDE FADING OF SIMULTANEOUS TRANSIONOSPHERIC L-BAND AND VHF SIGNALS RECEIVED AT THE GEOMAGNETIC EQUATOR." JUNE 19
72, WESTINGHOUSE ELECTRIC CORPORATION, TECHNICAL MEMORANDUM, NTIS: WJ3-10216, NASA: NASA-TN-X-66060, OTHER: X-810-72-202.

SHAFRIR, U.
U495 SEE AUTHOR : VONDER HAAR, I.-H.

SHAMASKIN, R.-B.
U675 SEE AUTHOR : DOMM, B.-M.

SHAMASKIN, R.-B.
U034 "COMMUNICATIONS SATELLITES AND MEDICINE." MAY 1977, JOURNAL ARTICLE.

SHAMASKIN, R.-B.
U740 "ADVANCED BIOMEDICAL APPLICATIONS TO SATELLITE COMMUNICATIONS." JULY 1975, VETERANS ADMINISTRATION-WASHINGTON, D.C. 20420,
PAPER.

SHAMASKIN, R.-B.
U741 "SATELLITE EXCHANGES OF MEDICAL INFORMATION." JULY 1974, VETERANS ADMINISTRATION, 810 VERMONT AVENUE N.W., WASHINGTON, D.C.
20420, JOURNAL ARTICLE.

SHAPELY, W.-H.
U171 SEE AUTHOR : LAWSON, R.-G.

SHAPELY, W.-H.
U166 "BRIEFINGS ON STUDY OF SATELLITE COMMUNICATIONS FOR ALASKA." SEP 70, OFFICE OF THE ADMINISTRATOR, NASA, PROG. REPT.

SHAPELY, W.-H.
U207 "LETTER REQUESTING AIS TIME FOR MARITIME EXPERIMENT." JUL 69; NAVSAT SYSTEM INC., NEWPORT BEACH, CALIF.

SHARP, R.-D.
U007 "COORDINATED AURORAL-ELECTROM OBSERVATIONS FROM A SYNCHRONOUS AND A POLAR SATELLITE." NOV 1971, LOCKHEED PALO ALTO RES
EARCH LABORATORY, PALO ALTO, CALIFORNIA, JOURNAL ARTICLE, *** JOURNAL OF GEOPHYSICAL RESEARCH, VOL. 75, NO. 31, PP. 7669-76

SHELLEY, E.-G.
U007 SEE AUTHOR : SHARP, R.-D.

SHEMK, A.-E.
U008 "NIMBUS/ATIS-3 OBSERVATIONS OF THE EVOLUTION OF HURRICANE CAMILLE." APR 1978, JOURNAL ARTICLE.

SHENK, W.E. "THE GEOSYNCHRONOUS VERY HIGH RESOLUTION RADIOMETER." NOV 75, NASA/GSFC, GREENBELT, MD, JOURNAL ARTICLE.
0846

SHENK, W. SEE AUTHOR : HASLER, A.F.
0550

SHENK, W.E. SEE AUTHOR : FUJITA, T.T.
0507

SHUMAKER, H.A. SEE AUTHOR : MALOV, J.E.
0850

SHUTIE, P.F. SEE AUTHOR : ALLNUIT, J.E.
0960

SHUTIE, P.F. "DEPOLARIZATION MEASUREMENTS AT 30 GHZ USING TRANSMISSIONS FROM AIS-6." OCT 1977, SRC APPLETON LABORATORY, DITTON PARK,
096 SLOUGH, UK, TECHNICAL REPORT, NIS: N70-15347.

STOFORD, M.J. "PERFORMANCE OF AN L-BAND AEROSAT ANTENNA SYSTEM FOR AIRCRAFT." JUN 1975, TECHNICAL REPORT.
0806

SIERRA RESEARCH ENVIRONMENTAL LABORATORY
0044 SEE AUTHOR : KLEPPE, J.A.

SINDAR, D.M. "AIS-3 OBSERVED CLOUD BRIGHTNESS FIELD RELATED TO MESO-TO SUBSYNOPTIC-SCALE RAINFALL PATTERN." WISCONSIN UNIVERSITY, MADISON, WISCONSIN, TECHNICAL MEMORANDUM, 72M 27648.
0661

SINDAR, D.M. "CONVECTIVE HEAT TRANSPORT OVER THE TROPICAL MID-PACIFIC AS ESTIMATED FROM A GEOSYNCHRONOUS SATELLITE ALTITUDE." AUG. 19
0662 70, WISCONSIN UNIVERSITY MADISON, WISCONSIN, TECHNICAL REPORT, 71M 11616.

SINDAR, D.M. SEE AUTHOR : MARTIN, D.M.
0996

SINDAR, D.M. SEE AUTHOR : GRIFFITH, C.G.
0571

SINDAR, D.M. SEE AUTHOR : SUOMI, V.E.
0647

SINKULA, G.J. "VERY SHORT RANGE LOCAL AREA WEATHER FORECASTING SATELLITES." JAN 1972, DEPT. OF ATMOSPHERIC SCIENCE COLORADO STATE UNIV. F
0649 ORT COLLINS, COLO., TECHNICAL REPORT, AD 74098.

SINGH, J.P. SEE AUTHOR : MORGAN, R.P.
0222

SINGH, J.P. "THE AIS-6 SATELLITE INSTRUCTIONAL TELEVISION EXPERIMENT (SITE) IN INDIA." 1976, INDIAN SPACE RESEARCH ORGANIZATION, BANG
0841 ALORE, INDIA, JOURNAL ARTICLE, A77-20302.

SINGH, J.P.
0859 SEE AUTHOR : MORGAN, R.P.

SISCOE, G.L.
0083 SEE AUTHOR : CUMMINGS, W.D.

SIVO, J. M.
0659 "TRENDS IN NASA COMMUNICATION SATELLITES." AUGUST 72, ANNUAL INSTITUTE ON WORLD AFFAIRS, 131M, SAN DIEGO, CALIFORNIA, PA
PER, 73A 12846.

SKAN COMMUNITIES
U140 SEE AUTHOR : PARKER, W.B.

SKAN COMMUNITIES
0149 SEE AUTHOR : PARKER, W.B.

SKILLMAN, I.L.
0044 "MAGNETOPAUSE CROSSING OF THE GEOSTATIONARY SATELLITE ATS-5 AT 6.6 RE." JAN 1971, NASA, GODDARD SPACE FLIGHT CENTER, L
ABORATORY FOR SPACE PHYSICS, JOURNAL ARTICLE, *** JOURNAL OF GEOPHYSICAL RESEARCH, VOL. 76, NO. 1, PP. 48-50, FEB 1971 ***

SKILLMAN, W.
0550 SEE AUTHOR : HASLER, A.F.

SLACK, F.F.
0802 "ATS-6 40-AND 360-MHZ DIFFERENTIAL PHASE MEASUREMENTS." 2 JUN 76, AIR FORCE GEOPHYSICAL LABORATORY/ILR, HANSCOM AFB, MA
INC, U1731, TECHNICAL REPORT, ORIGINATOR: AFGL-TR-76-0119, OTHER ADAD30739.

SMITH, C.
0893 SEE AUTHOR : CARR, F.

SMITH, D.C.
0947 SEE AUTHOR : SPAIN, P.

SMITH, D.D.
0213 SEE AUTHOR : MORWOOD, F.W.

SMITH, R.F.
0903 "ATMOSPHERIC ATTENUATION OF MICROWAVE SATELLITE LIMS." JAN 75, SIGNALS RESEARCH AND DEVELOPMENT ESTABLISHMENT, CHRISTCH
URCH, DORCHESTER, ENGLAND, TECHNICAL REPORT, M15: M7530304, ORIGINATOR: 73043, OTHER: ADA 012502.

SMITH, W.
0462 SEE AUTHOR : DEZOUIE, O.J.

SMITH, W.S.
0004 "APPLICATION FOR USE OF ATS-1 FOR COMMUNICATION AMONG SOVIET AND U.S. SHIPS AND AIRCRAFT IN STUDYING ATMOSPHERIC, SEA,
AND ICE CONDITIONS IN THE BERING SEA AREA." JAN 1973, NASA, GODDARD SPACE FLIGHT CENTER, LABORATORY FOR METEOROLOGY & EAR

SMITH, C.L.
0599 "A COMPARISON OF LOW-CLOUD SATELLITE WIND ESTIMATES WITH ANALYSES BASED ON AIRCRAFT OBSERVATIONS IN A DISTURBED TROPICAL
WETLINE." JUNE 1976, JOURNAL ARTICLE, 76A 35963.

SMITH, R.P.
0747 "AN HISTORICAL OVERVIEW OF THE PRODUCTION REQUIREMENT FOR THE SATELLITE TECHNOLOGY DEMONSTRATION. TECHNICAL REPORT NUMB
ER 504." 1975, FEDERATION OF ROCKY MOUNTAIN STATES, INC., 2480 WEST 26TH AVENUE, SUITE 300B, DENVER, COLORADO 80211. TECHNICAL REP

SWALE, R.C. "A MAGNETOMETER EXPERIMENT FOR THE APPLICATIONS TECHNOLOGY SATELLITE." UCLA- INST. OF GEOPHYSICS AND PLANETARY PHYSICS.
UN49 DEC. 1966.

SWALE, R.C. SEE AUTHOR : MCPHERSON, R.L.
UN91

SWELL, M.M. "APPLICATION FOR USE OF ATS-1 SATELLITE TO SUPPORT PROJECT COILINGA." JAN 1974, ATOMIC ENERGY COMMISSION, WASHINGTON, D.C. APPLICATION FOR USE OF ATS SATELLITE.
UN30

SWIDEN, J.F. "METEOROLOGICAL SATELLITE COVERAGE OF FLORIDA EVERGLADES FIRES." OCT 1976, JOURNAL ARTICLE, 77A 10070.
UN47

SOAMES, M.C. "[EVALUATION INDICATES GOOD RESULTS FOR PROJECT 'SAGE'." MARCH/APRIL 1974, SCITRAM BOX 5456, SANTA BARBARA, CALIFORNIA 9310
UN81 B. JOURNAL ARTICLE, 74N 7567D.

SOLOMON, S.J. SEE AUTHOR : BELEV, M.M.
UN10

SOMMER, G.L. SEE AUTHOR : SHERR, W.E.
UN46

SOPHIANOPOULOS, A. "MEDICINE IN THE NORTH: A UNIQUE EXPERIMENT." 1976, BELL-NORTHERN RESEARCH, JOURNAL ARTICLE.
UN07

SOSEY, P. SEE AUTHOR : SMITH, M.P.
UN47

SPAMIS, L.A. SEE AUTHOR : HAMAS, O.-J.
UN02

SPAIN, P. "A DIRECT BROADCAST SATELLITE FOR EDUCATION AND DEVELOPMENT IN AFRICA" FEB 72, STANFORD UNIVERSITY, INSTITUTE FOR COMMUNICATION RESEARCH, STANFORD, CALIFORNIA, 94025, TECHNICAL REPORT, ERIC ED 060 659.
UN47

SPINNEY LIMITED SEE AUTHOR : UNKNOWN
UN09

ST. LOUIS UNIVERSITY SEE AUTHOR : FUJITA, T.T.
UN09

STAFF NASA & FAIRCHILD INDUSTRIES "THE COMMUNITY SATELLITE I." SEPT 1974, JOURNAL ARTICLE, 74A 40399.
UN54

STAFF NASA & FAIRCHILD INDUSTRIES "THE COMMUNITY SATELLITE II." OCT 1974, JOURNAL ARTICLE, 74A 44686.
UN45

STAFF NASA & FAIRCHILD INDUSTRIES "THE COMMUNITY SATELLITE III." NOV 1974, JOURNAL ARTICLE, 75A 11022.
UN86

STARR, A.J. "A STUDY OF CLOUD DISTRIBUTIONS USING REFLECTED RADIANCE MEASUREMENTS FROM THE ATS SATELLITES." JAN 1970, UNIVERSITY OF WISCONSIN, SPACE SCIENCE & ENGINEERING CENTER, MADISON, WISCONSIN, JOURNAL ARTICLE, *** JOURNAL OF APPLIED METEOROLOGY

STANFORD ELECTRONICS LABORATORIES
0151 SEE AUTHOR : LUSIGNAN, D.B.

STANFORD RESEARCH INSTITUTE
0000 SEE AUTHOR : ENDLICH, R.M.

STANFORD RESEARCH INSTITUTE
0107 SEE AUTHOR : SENLORENY, S.M.

STANFORD RESEARCH INSTITUTE
0207 SEE AUTHOR : BLACKMER, R. H.

STANFORD UNIVERSITY
0025 SEE AUTHOR : LUSIGNAN, D.B.

STANFORD UNIVERSITY
0040 SEE AUTHOR : ALLAN, D.S.

STANFORD UNIVERSITY
0045 "DEMONSTRATION OF SATELLITE DISTRIBUTION OF COMPUTER-ASSISTED INSTRUCTION FOR RURAL SCHOOLS." MAY 1971- JUN 1972, STANFORD UNIVERSITY, INSTITUTE FOR MATHEMATICAL STUDIES IN THE SOCIAL SCIENCES FINAL TECH. REPT. PROJECT CODE 460.

STANFORD UNIVERSITY
0052 SEE AUTHOR : KREIMER, O.

STANFORD UNIVERSITY
0152 SEE AUTHOR : SUPPES, P.

STANFORD UNIVERSITY
0162 SEE AUTHOR : PARKER, E.B.

STANFORD UNIVERSITY
0163 SEE AUTHOR : PARKER, E.B.

STANFORD UNIVERSITY
0252 SEE AUTHOR : HUDSON, HEATHER E.

STANFORD UNIVERSITY
0262 "EXECUTIVE SUMMARY OF 'IONOSPHERIC ELECTRON CONTENT'." AUG 71, STANFORD ELECTRONICS LABORATORIES, STANFORD UNIVERSITY, TECH. MEMO. (USAF SANSO).

STANFORD UNIVERSITY
0270 SEE AUTHOR : DARGA, A. V.

STANFORD UNIVERSITY
0494 "RADIO PROPAGATION STUDIES OF THE IONOSPHERE." SEPT. 1967.

STANFORD, G.
0604 "DEVELOPMENT AND TEST OF A CONFORMAL MICRO STRIP AIRBORNE PHASED ARRAY FOR USE WITH THE ATS-6 SATELLITE." 3-5 JUNE 1975, BALL BROTHERS, RESEARCH CORPORATION, P.O. BOX 1062, BOULDER, COLORADO 80302, PAPER, 76A 15945.

STANLEY, G.M.
0120 "INFORMATION UPDATE ON ALASKA ATS EXPERIMENTS." MAR '72, GEOPHYSICAL INSTITUTE OF THE UNIVERSITY OF ALASKA, COLLEGE, ALASKA, PROG. REPT.

STANLEY, G.M.
0043 "SUMMARIES OF USE OF ATS-1 FOR MEDICAL PURPOSES." JUL-DEC 1973, UNIVERSITY OF ALASKA, GEOPHYSICAL INSTITUTE, COLLEGE, ALASKA.

STANLEY, G.M.
0769

"CORRESPONDENCE FROM STANLEY TO R. MARSTEN." DEC 1972, GEOPHYSICAL INSTITUTE, UNIVERSITY OF ALASKA.

STANLEY, G.M.
0770

"SATELLITE TELECOMMUNICATIONS EXPERIMENTS." MAR 1972, UNIVERSITY OF ALASKA, GEOPHYSICAL INSTITUTE, COLLEGE, ALASKA.

STAPLETON, B.P.
0775

SEE AUTHOR : RUO, C.J.

STATE OF ALASKA

U034

SEE AUTHOR : BUCK, C.L.

STATE OF ALASKA, OFFICE OF THE GOVERNOR

0061

SEE AUTHOR : BUCK, C.L.

STATE OF ALASKA, OFFICE OF THE GOVERNOR

U062

SEE AUTHOR : BUCK, C.L.

STATE OF ALASKA

0122

"A PROPOSAL FOR SATELLITE COMMUNICATIONS DEMONSTRATION FOR ALASKA." SEP 1969, STATE OF ALASKA, JUNEAU, PROPOSAL.

STATE OF ALASKA

0124

"HEALTH AND EDUCATION SATELLITE COMMUNICATIONS PROJECT PLAN." JAN 71, STATE OF ALASKA, PROPOSAL.

STATE OF ALASKA

0125

SEE AUTHOR : NORTHROP, C.M.

STATE OF ALASKA

0191

SEE AUTHOR : HIEBERT, A.G.

STATE OF ALASKA

U142

"INTERIM ALASKA SATELLITE COMMUNICATIONS REPORT." DEC 69, STATE OF ALASKA, PROGRESS REPORT.

STATE OF ALASKA

0193

"A PROPOSAL FOR SATELLITE COMMUNICATIONS DEMONSTRATION FOR ALASKA." NOV 69, STATE OF ALASKA, PROPOSAL.

STATE OF ALASKA

U169

SEE AUTHOR : NORTHROP, C.M.

STATE OF ALASKA

U245

"EXECUTIVE SUMMARY OF STATUS REPORTS FROM THE PROJECT DIRECTOR AND HIS ASSOCIATES ON THE ALASKA EXPERIMENT." JUN 72, S

STATE OF ALASKA, TECH. MEMO.

STATE OF ALASKA

U246

"EXECUTIVE SUMMARY OF CASE REPORTS FROM THE UNIVERSITIES OF WASHINGTON, WISCONSIN, AND STANFORD IN REGARD TO THE ALASKA EXPERIMENT." JUN 72, STATE OF ALASKA, TECH. MEMO.

3. ELL, M.O. "TEST FOR COMPARISON OF PRE-PROCESSED AND UNPROCESSED VOICE MODULATION THROUGH THE ATS-1 SATELLITE." FEB 67; AERONAUTICAL RADIO INC., ANNAPOLIS, MARYLAND.

0174

STEPHANIDES, C.C.
0846 SEE AUTHOR : SHEHR, M.E.

STOOP, P.I.
0276 "MONTHLY PROGRESS REPORTS ON CONTRACT NIN 71-0712." JAN-JUL 1972, UNIVERSITY OF ALASKA, GEOPHYSICAL INSTITUTE, COLLEGE, ALASKA.

STOUT, J.
0571 SEE AUTHOR : GRIFFITH, C.G.

STOUTMYER, D.R.
0223 "ANALYTICAL OPTIMIZATION USING COMPUTER ALGEBRAIC MANIPULATION." JUL 74; UNIV. OF HAWAII, ALOHA, HONOLULU, HAWAII.

STRATTON, A.M. SEE AUTHOR : VOGEL, W.J.
0600

STRATTON, A.M.
0699 "ATS-5 MILLIMETER WAVE EXPERIMENTS." 1972, MILLIMETER WAVE GROUP, ELECTRICAL ENGINEERING RESEARCH LABORATORY, THE UNIVERSITY OF TEXAS AT AUSTIN, AUSTIN, TEXAS, TECHNICAL REPORT, M72-27174.

STRANGE, J.D.
0765 SEE AUTHOR : ENGLER, M.A.

STRANGE, J.D.
0705 SEE AUTHOR : ENGLER, M.A.

STRANGE, J.D.
0706 SEE AUTHOR : ENGLER, M.A.

STRANGE, J.D.
0707 SEE AUTHOR : ENGLER, M.A.

STRAUCH, A.B.
0649 SEE AUTHOR : DUNCAN, R.A.

STRETCHBERRY, D. M.
0659 SEE AUTHOR : SIVO, J. M.

STREICHAND, J.I.
0456 "MICROWAVE ATTENUATION MEASUREMENTS USING THE ATS-5 SATELLITE." COMMUNICATIONS RESEARCH CENTER, OTTAWA, ONTARIO, FEB. 1971.

STREIN, G.E.
0746 SEE AUTHOR : CULLEN, T.J.

STROMME, J.
0629 SEE AUTHOR : HAGEN, B.

STROMME, J.
0247 SEE AUTHOR : HAGEN, B.

STUTZMAN, W.L. SEE AUTHOR : BOSTIAN, C.W.
0002

STUTZMAN, W.L.
0054 "A MILLIMETER WAVE ATTENUATION AND DEPOLARIZATION EXPERIMENT USING THE COMSTAR AND CTS SATELLITES." 15 APR 79, VIRGINIA
POLYTECHNIC INSTITUTE AND STATE UNIVERSITY DEPARTMENT OF ELECTRICAL ENGINEERING, BLACKSBURG, VIRGINIA, 24061, TECHNICAL R

STUTZMAN, W.L. SEE AUTHOR : BOSTIAN, C.W.
0919

STUTZMAN, W.L. SEE AUTHOR : BOSTIAN, C.W.
0990

STUTZMAN, W.L. SEE AUTHOR : BOSTIAN, C.W.
0991

STUTZMAN, W.L. "ATS-6 SATELLITE 20GHZ PROPAGATION MEASUREMENTS AT LOW ELEVATION ANGLES." 11 DEC. 1975, DEPARTMENT OF ELECTRICAL ENGINEER
ING, VIRGINIA POLYTECHNIC INSTITUTE & STATE UNIVERSITY, BLACKSBURG, VA. 24061, JOURNAL ARTICLE, 76A 16886.

SUGIURA, M. SEE AUTHOR : SKILLMAN, T.L.
0084

SUGURI, Y. "A TDMA/PCM EXPERIMENT ON APPLICATIONS TECHNOLOGY SATELLITES." INTERNATIONAL CONFERENCE OF COMMUNICATIONS, BOULDER, COLO
0123 . JUNE 1969.

SUNDERLIN, W.S. SEE AUTHOR : WARNECKE, G.
0409

SUNDERLIN, W.S. "THE ATS-1 SPIN SCAN CAMERA EXPERIMENT." APR 1967, GODDARD SPACEFLIGHT CENTER, TECH. REPT. (NASA).
0106

SUOMI, V.E. "DETERMINATION OF THE SEA SURFACE SLOPES DISTRIBUTION AND WIND VELOCITY USING SUN GLITTER VIEWED FROM A SYNCHRONOUS SAT
0103 ELLITE." DEC 1968, UNIVERSITY OF WISCONSIN, TECH. REPT., CONTRACT NO. NASW-65--1958-1968 (NASA).

SUOMI, V.E. "GEOSYNCHRONOUS METEOROLOGICAL SATELLITE." UNIV. OF WISCONSIN. OCT. 1968.
0415

SUOMI, V.E. "THE SPIN CLOUD CAMERA." UNIV. OF WISCONSIN. DEC. 1966.
0427

SUOMI, V.E. "METEOROLOGICAL SATELLITE INSTRUMENTATION AND DATA PROCESSING." WISCONSIN UNIV., MADISON. 1958-1963.
0441

SUOMI, V.E. "CONTINUOUS OBSERVATION OF WEATHER MOTION." UNIV. OF WISCONSIN, JUNE 1968.
0496

SUOMI, V.E. "METEOROLOGICAL MEASUREMENTS FROM SATELLITE PLATFORMS." AUG. 1971, UNIVERSITY OF WISCONSIN MADISON, WISCONSIN, TECHNICAL R
0647 REPORT, 72M13551.

SHOMI, V.E.
0495

SEE AUTHOR : VOMER HAAR, I.H.

SUPPLES, P.
0152

"PROPOSAL FOR DISTRIBUTING CAT TO RURAL AREAS." MAY 73; STAMFORD UNIV., STAMFORD, CAL.

SURECK, D.
1000

"CLASSROOM IN THE SKY." OCT 1974, VISUAL EDUCATION, JOURNAL ARTICLE, WSU: CJ109686 JMS01359

SUTTON, R. W.
0286

"A1S-5 MULTIPATH/RANGING/DIGITAL DATA L-BAND EXPERIMENTAL PROGRAM." APRIL 73; BOEING COMMERCIAL AIRPLANE CO., P. O. BOX 3707, SEATTLE, WASHINGTON, 98124.

SUTTON, R.W.
0687

SEE AUTHOR : SCHROEDER, E.H.

SUTTON, R.W.
0552

SEE AUTHOR : SCHROEDER, E.H.

SUTTON, R.W.
0554

"SATELLITE-AIRCRAFT MULTIPATH AND RANGING EXPERIMENT RESULTS AT L-BAND." MAY 1973, BOEING COMMERCIAL AIRPLANE COMPANY, SEATTLE, WASHINGTON 98124, JOURNAL ARTICLE, 73A 29898.

SUYDERHOUD, H.G.
1006

SEE AUTHOR : SATFIELD, A.G.

SVERKHOUT, K
0029

SEE AUTHOR : HAG, M. B

SVERKHOUT, K.
0247

SEE AUTHOR : HAGEN, B.

SWANSON, R.L.
0888

SEE AUTHOR : WALKER, R. J.

SYRACUSE RESEARCH CORPORATION
"INSTRUCTIONAL TELEVISION: A COMPARATIVE STUDY OF SATELLITES AND OTHER DELIVERY SYSTEMS." NOV 1976, EDUCATIONAL POLICY RESEARCH CENTER, SYRACUSE RESEARCH CORP., SYRACUSE, N.Y. 13210, TECHNICAL REPORT.

TAYLOR, D.P.
0739

"TESTING A 60 MB/S FFSM MODEM ON HERNES SATELLITE." MARCH 1977, COMMUNICATIONS RESEARCH LABORATORY, MCMASTER UNIVERSITY, HAMILTON, ONTARIO, CANADA, TECHNICAL REPORT.

TAYLOR, D.P.
0703

"A HIGH SPEED DIGITAL MODEM FOR EXPERIMENTAL WORK ON THE COMMUNICATIONS TECHNOLOGY SATELLITE." 1977, DEPT. OF ELECTRICAL ENGINEERING, MCMASTER UNIVERSITY, HAMILTON, ONTARIO, JOURNAL ARTICLE.

TAYLOR, M.C.
0100

SEE AUTHOR : ZIPSER, E.J.

TAYLOR, M.C.
0609

SEE AUTHOR : HODGE, D.B.

TAYLOR, M.-L. SEE AUTHOR : WILKE, J.-L.
 U942
 TAYLOR, R.-L. SEE AUTHOR : ALLEN, W.-K.
 U636
 TAYLOR, R.-L. "VANGUARD/PLACE EXPERIMENT SYSTEM DESIGN AND TEST PLAN." AUG 1973, TEST PLAN, N73-30646.
 U645
 TAYLOR, R.-L. "VANGUARD/PLACE EXPERIMENT SYSTEM DESIGN AND TEST PLAN." JAN/FEB 1974, RALPH E. TAYLOR, NASA, COMMUNICATION AND NAVIGATION DIVISION, GODDARD SPACE FLIGHT CENTER, CODE 945, GREENBELT, MD, 20771, JOURNAL ARTICLE.
 U007
 TELJEIRO, J. SEE AUTHOR : GRIFFITH, C.-G.
 U571
 TELCOM, INC. "SATELLITE COMMUNICATIONS DURING OPERATION PICAPOSTE." FEB 1973, TELCOM, INC., LAS VEGAS, NEVADA, TECH. REPT. TMR-323-D
 U042 78 U.S. ATOMIC ENERGY COMMISSION, NEVADA OPERATIONS OFFICE, LAS VEGAS, NEVADA).
 TELECOMMUNICATIONS HQO
 U204 SEE AUTHOR : WITHERS, D.-J.
 TELECONSULT, INC.
 U224 SEE AUTHOR : LING, SUILIN
 TELESAT CANADA
 U631 SEE AUTHOR : KINIK, J.
 TELESAT CANADA
 U144 SEE AUTHOR : ALMOND, J.
 TEMPLETON, LAWRENCE W.
 U158 "TRANSCONTINENTAL TELEVISION RELAY DEMONSTRATIONS USING AIS-1 AND AIS-111 SATELLITES." MAY 70; HAMMETT AND EDISON COMS
 ULTIMATE, SAN FRANCISCO, CAL., (CORP FOR PUBLIC BROADCASTING).
 TEXAS A&M UNIVERSITY
 U009 SEE AUTHOR : CLAYTON, W.-H.
 TEXAS INSTRUMENTS, INC.
 U328 "FINAL REPORT FOR OMEGA POSITION LOCATION EQUIPMENT VERY HIGH VELOCITY TEST", NASA CONTRACT NO. NAS 5-10248, REPORT NO.
 18, TEXAS INSTRUMENTS, INC., JULY 1969.
 TEXAS INSTRUMENTS, INC.
 U329 "FINAL REPORT FOR OMEGA POSITION LOCATION EQUIPMENT VERY HIGH VELOCITY TEST", NASA CONTRACT NO. NAS 5-10248, ADDENDUM N
 O. 1, HLPURT NO. 18A, TEXAS INSTRUMENTS, INC., AUGUST 1969.
 TEXAS INSTRUMENTS, INC.
 U330 "VHF NAVIGATION EXPERIMENT", FINAL REPORT FOR PERIOD SEPTEMBER 1969 TO DECEMBER 1971, NASA CONTRACT NO. NAS 5-21079, F1
 NAL REPORT U9-832400-F, TEXAS INSTRUMENTS, INC., DALLAS, TEXAS, MAY 1971.
 THALASSA, INC.
 U203 SEE AUTHOR : HORTON, THOMAS F.

THEOBOLD, D.M.
0899 SEE AUTHOR : HODGE, D.B.

THEOBOLD, D.M.
0900 "THE OSU SELF-PHASED ARRAY FOR PROPAGATION MEASUREMENTS USING THE 11.7 GHZ CTS BEACON." NOV 76, THE OHIO STATE UNIVERSITY ELECTROSCIENCE LABORATORY, DEPARTMENT OF ELECTRICAL ENGINEERING, COLUMBUS, OHIO, 43213, TECHNICAL REPORT, NTIS: N77-2433

THEOBOLD, D.M.
0546 SEE AUTHOR : HODGE, D.B.

THEOBOLD, D.M.
0609 SEE AUTHOR : HODGE, D.B.

THIEME, U.
0644 "BROADCASTING SATELLITES AND INTERNATIONAL LAW: A NEW COMMUNICATIONS TECHNOLOGY AND ITS WORLDWIDE LEGAL CONSEQUENCES." MAY 1976, AGNEW TECH-TRAM INC. WOODLAND HILLS, CALIF., TECHNICAL REPORT, N76-24069.

THIRLWELL, J.
0959 SEE AUTHOR : HOWELL, R.G.

THIRLWELL, J.
0961 SEE AUTHOR : HOWELL, R.G.

THIRLWELL, J.
0966 SEE AUTHOR : BELL, R.R.

THOLE, JOHN M.
0518 "ATS-6 (UPGRADING THE LIFE STYLE OF MILLIONS OF PEOPLE)." 30 SEP TO 5 OCT 1974, NASA, WASHINGTON, D.C., FAIRCHILD SPACE AND ELECTRONIC CO., GERMANTOWN, MD., JOURNAL ARTICLE, TSA 13721.

THOMA, G.R.
0243 "EARTH TERMINAL DESIGN CONSIDERATIONS FOR BIOMEDICAL COMMUNICATIONS VIA CTS." SEP 1976, NATIONAL LIBRARY OF MEDICINE, BETHESDA, MARYLAND, PAPER, A77-49862.

THOMA, G.R.
0928 "EVALUATION OF ECHO SUPPRESSION IN VIDEO TELECONFERENCING VIA THE COMMUNICATIONS TECHNOLOGY SATELLITE." FEB 79, LISTEN WITH ALL NATIONAL CENTER FOR BIOMEDICAL COMMUNICATIONS, NATIONAL LIBRARY OF MEDICINE, 8600 ROCKVILLE PIKE, BETHESDA, MARYLAND,

THOMPSON III, W.I.
0982 SEE AUTHOR : BROWN III, W.E.

THOMPSON III, W.I.
0607 SEE AUTHOR : BROWN III, W.E.

THOMPSON, A.U.
0607 SEE AUTHOR : SCHROEDER, E.H.

THOMPSON, A.U.
0777 "AIR TRAFFIC CONTROL EXPERIMENTATION AND EVALUATION WITH THE NASA ATS-6 SATELLITE, VOL 5: MULTIPATH CHANNEL TEST." SEP 1976, BOEING, SEATTLE, WASH, TECHNICAL REPORT.

THOMPSON, A.U.
0778 "AIR TRAFFIC CONTROL EXPERIMENTATION AND EVALUATION WITH NASA ATS-6 SATELLITE, VOL 4: DATA REDUCTION AND ANALYSIS SOFTWARE." SEP 1976, BOEING COMMERCIAL AIRPLANE CO., SEATTLE, WASH, TECHNICAL REPORT.

THOMPSON, P.T. SEE AUTHOR : FRENCH, W.F.G.
0969

THOMPSON, P.T. SEE AUTHOR : TURNER, D.J.W.
0971

THOMPSON, W.I. III
0961 "AN AERONAUTICAL AND MARITIME SATELLITE TECHNOLOGY BIBLIOGRAPHY." MAR 76, U.S. DEPARTMENT OF TRANSPORTATION, TRANSPORTATION SYSTEMS CENTER, KENDALL SQUARE, CAMBRIDGE, MAINE, 02142, BIBLIOGRAPHY, NTIS: ADA023069.

THOMPSON, A.D.
0552 SEE AUTHOR : SCHROEDER, E.H.

THOMPSON, A.D.
0556 SEE AUTHOR : SUTTON, R.W.

TISSAUD, G.
0698 SEE AUTHOR : POMALAZA, J.

TRUDELL, B.J.
0865 SEE AUTHOR : SCHMID, P.E.

TPW SPACE LOG
0403 "APPLICATIONS SATELLITES - AN INTRODUCTORY BIBLIOGRAPHY." FALL 1968.

TRYON, P.V.
0984 SEE AUTHOR : WELLS, P.I.

TSUCHIYA, K.
0697 "WINTER CLOUD DISTRIBUTION OVER THE PACIFIC OCEAN ON THE BASIS OF AN ANALYSIS OF AIS PHOTOGRAPHS." MAY 1968, TENNI, JOURN
AL ARTICLE, 069-17057.

TURNER, D.J.W.
0971 "RADIATION PATTERNS OF THE MARLESHAM HEATH 6.1M STEERABLE AERIAL AT 20 AND 30 GHZ MEASURED USING THE ATS-6 BEACONS AS SOURCES." OCT 1977, POST OFFICE RESEARCH CENTRE, MARLESHAM HEATH, IPSWICH, UN, TECHNICAL REPORT, NTIS: M78-15351.

U.S. AIR FORCE
0429 "SYMPOSIUM ON THE APPLICATION OF ATMOSPHERIC STUDIES TO SATELLITE TRANSMISSIONS." BOSTON, MASS. PROCEEDINGS. SEPT. 1969

U.S. COAST GUARD
0267 "EXECUTIVE SUMMARY OF 'TECHNICAL DATA REPORT ON THE ATS PROGRAM'." FEB 69, US COAST GUARD, TECH. MEMO.

U.S. SENATOR FROM ALASKA
0168 SEE AUTHOR : GRAVEL, M.

UCLA
0008 SEE AUTHOR : WONG, A.Y.

UCLA
0003 SEE AUTHOR : CUMMINGS, W.D.

UCLA
0085 SEE AUTHOR : COLEMAN, JR., P.J.

UCLA
0090 SEE AUTHOR : PATEL, V.L.

UNWIG, J.M.
0469 SEE AUTHOR : FALTER, J.W.

UMERI, R.
0910 "MULTIFREQUENCY STUDIES OF IONOSPHERIC SCINTILLATIONS." MAR 77, DEPT OF ELECTRICAL ENGINEERING, UNIVERSITY OF ILLINOIS,
URBANA, ILLINOIS, 61801, JOURNAL ARTICLE.

UNGWICHIAN, V.
0994 SEE AUTHOR : LEVIS, C.A.

UNIVERSITY COLLEGE OF SWANSEA
0033 SEE AUTHOR : MARCONI COMPANY

UNIVERSITY COLLEGE OF SWANSEA
0324 "UNITED KINGDOM MARITIME SATELLITE COMMUNICATION TESTS", PREPARED FOR THE AD HOC UNITED KINGDOM MARITIME SATELLITE TEST
S COMMITTEE. AUG.-DEC. 1970.

UNIVERSITY OF ALASKA
0043 SEE AUTHOR : STANLEY, G.M.

UNIVERSITY OF ALASKA
0120 SEE AUTHOR : STANLEY, G.M.

UNIVERSITY OF ALASKA
0140 SEE AUTHOR : BUCKWAY, P.

UNIVERSITY OF ALASKA
0167 "ATS ALASKA TELE-MEDICINE EXPERIMENT." NOV 72, UNIVERSITY OF ALASKA, TECH. REPT.

UNIVERSITY OF ALASKA, GEOPHYSICAL INSTITUTE
0225 SEE AUTHOR : UNKNOWN

UNIVERSITY OF ALASKA
0269 SEE AUTHOR : STANLEY, G.M.

UNIVERSITY OF ALASKA
0276 SEE AUTHOR : STOUT, P.T.

UNIVERSITY OF ALASKA
0270 SEE AUTHOR : STANLEY, G.M.

UNIVERSITY OF AUCKLAND
0202 SEE AUTHOR : AUBURN, F. M.

UNIVERSITY OF CALIFORNIA, LOS ANGELES
0008 SEE AUTHOR : WONG, A.Y.

UNIVERSITY OF CALIFORNIA
0075 SEE AUTHOR : SCHILLER, H.J.

UNIVERSITY OF CALIFORNIA
0081 SEE AUTHOR : BOGOTT, F.M.

UNIVERSITY OF CALIFORNIA AT SAN DIEGO
0008 SEE AUTHOR : DEFOREST, S.E.

UNIVERSITY OF CALIFORNIA AT BERKELEY
0009 SEE AUTHOR : BOGOTT, F.M.

UNIVERSITY OF CHICAGO
0104 SEE AUTHOR : BRADBURY, D.L.

UNIVERSITY OF CHICAGO
0105 SEE AUTHOR : FUJITA, T.T.

UNIVERSITY OF CHICAGO
0107 SEE AUTHOR : MINOMIYA, K.

UNIVERSITY OF CHICAGO
0108 SEE AUTHOR : FUJITA, T.

UNIVERSITY OF CHICAGO
0210 SEE AUTHOR : FUJITA, T.

UNIVERSITY OF CHICAGO
0301 SEE AUTHOR : FUJITA, T.

UNIVERSITY OF CHICAGO
0302 SEE AUTHOR : MINOMIYA, K.

UNIVERSITY OF CHICAGO
0304 SEE AUTHOR : FUJITA, T.

UNIVERSITY OF CHICAGO
0305 SEE AUTHOR : YUN-MEI CHANG

UNIVERSITY OF HAWAII
0012 SEE AUTHOR : BYSTROM, J.W.

UNIVERSITY OF HAWAII
0050 SEE AUTHOR : ABRAMSON, M.

UNIVERSITY OF HAWAII
0051 SEE AUTHOR : ABRAMSON, M.

UNIVERSITY OF HAWAII
0064 SEE AUTHOR : BYSTROM, J.W.

UNIVERSITY OF HAWAII
0065 SEE AUTHOR : BYSTROM, J.W.

UNIVERSITY OF HAWAII
0066 SEE AUTHOR : BYSTROM, J.W.

UNIVERSITY OF HAWAII
0067 SEE AUTHOR : BYSTROM, J.W.

UNIVERSITY OF HAWAII
0068 SEE AUTHOR : BYSTROM, J.W.

UNIVERSITY OF HAWAII
0091 SEE AUTHOR : BYSTROM, J.W.

UNIVERSITY OF HAWAII
0092 SEE AUTHOR : BYSTROM, J.W.

UNIVERSITY OF HAWAII
0093 SEE AUTHOR : BYSTROM, J.W.

UNIVERSITY OF HAWAII
0094 SEE AUTHOR : BYSTROM, J.W.

UNIVERSITY OF HAWAII
0095 SEE AUTHOR : BYSTROM, J.W.

UNIVERSITY OF HAWAII
0096 SEE AUTHOR : BYSTROM, J.W.

UNIVERSITY OF HAWAII
0100 SEE AUTHOR : ZIPSER, E.J.

UNIVERSITY OF HAWAII
0119 SEE AUTHOR : MAX, DAVID M.

UNIVERSITY OF HAWAII
0244 "EXECUTIVE SUMMARY OF 'INTERIM REPORTS TO NASA FROM THE UNIVERSITY OF HAWAII ON THE PEACESAT PROJECT'." JUN 72, UNIVER
SITY OF HAWAII.

UNIVERSITY OF HAWAII
0281 SEE AUTHOR : KUMIMOTO, ELIZABETH M.

UNIVERSITY OF KANSAS
0302 SEE AUTHOR : DAY, J.L.

UNIVERSITY OF KENTUCKY
0257 SEE AUTHOR : COLTON, F.V.

UNIVERSITY OF MARYLAND
0372 SEE AUTHOR : DILLON, C.H.

UNIVERSITY OF MARYLAND
0075 SEE AUTHOR : MURPHY, I.P.

UNIVERSITY OF MICHIGAN
0114 SEE AUTHOR : MORITA, Y

UNIVERSITY OF NEVADA, SEENSTORM PROJECT
0006 SEE AUTHOR : KLEPPE, J.A.

UNIVERSITY OF NEVADA
0007 SEE AUTHOR : KLEPPE, J.A.

UNIVERSITY OF NEVADA
0044 SEE AUTHOR : KLEPPE, J.A.

UNIVERSITY OF NEVADA
0063 SEE AUTHOR : KLEPPE, J.A.

UNIVERSITY OF SOUTHERN CALIFORNIA
0272 SEE AUTHOR : FILEP, R-I.

UNIVERSITY OF THE SOUTH PACIFIC
0205 SEE AUTHOR : BRESNAMAN, L.F.

UNIVERSITY OF THE SOUTH PACIFIC
0206 SEE AUTHOR : CUTTING, A.K.

UNIVERSITY OF THE SOUTH PACIFIC
0310 SEE AUTHOR : MCMECHAN, P.

UNIVERSITY OF THE SOUTH PACIFIC
0311 SEE AUTHOR : BENSTEAD, G.

UNIVERSITY OF TEXAS
0669 "ATS-5 SIGNAL CHARACTERISTICS AT 15.3 GHZ AND RELATED EXPERIMENTS AT 15 AND 35GHZ." JUNE 1972, UNIVERSITY OF TEXAS AT AUS
TIN MILLIMETER WAVE GROUP ELECTRICAL ENGINEERING RESEARCH LABORATORY AUSTIN, TEXAS, TECHNICAL REPORT, 72X 10540 CR-130089.

UNIVERSITY OF WISCONSIN
0070 SEE AUTHOR : STAMM, A.J.

UNIVERSITY OF WISCONSIN
0103 SEE AUTHOR : SUOMI, V.E.

UNIVERSITY OF WISCONSIN
0111 SEE AUTHOR : VONDER HAAR, I.H.

UNIVERSITY OF WISCONSIN, SPACE SCIENCE AND ENGINEERING CENTER
0170 SEE AUTHOR : LAWSON, R.G.

UNIVERSITY OF WISCONSIN, SPACE SCIENCE AND ENGINEERING CENTER
0171 SEE AUTHOR : LAWSON, R.G.

UNIVERSITY OF WASHINGTON
0271 SEE AUTHOR : ANDERSON, C.

UNIVERSITY OF WASHINGTON
0274 SEE AUTHOR : WILLARD, M.R.

UNIVERSITY OF WASHINGTON
0275 SEE AUTHOR : REYNOLDS, D.K.

UNIVERSITY OF WISCONSIN
0315 SEE AUTHOR : WEDMEYER, C. A.

UNIVERSITY OF WISCONSIN
0316 SEE AUTHOR : WEDMEYER, C. A.

UNIVERSITY OF WISCONSIN
0317 SEE AUTHOR : WEDMEYER, C. A.

UNIVERSITY OF WASHINGTON
0511 "A15-6 HEALTH EXPERIMENT." DEC 1974, UNIVERSITY OF WASHINGTON, SEATTLE, WASHINGTON, TECH. REPORT, PB-250 420.

UNKNOWN
U054 SEE AUTHOR : BRAU, C.

UNKNOWN
U150 SEE AUTHOR : GOULD, R.

UNKNOWN
U157 "A15-111 VIDEO LINK TEST REPORT." MAR 70; HUGHES AIRCRAFT CO., EL SEGUNDO, CAL., (CORP. FOR PUBLIC BROADCASTING).

UNKNOWN
U159 "TRANSCONTINENTAL INTERCONNECTION EXPERIMENT TECHNICAL ANALYSIS." MAR 70; CORP FOR PUBLIC BROADCASTING, NEW YORK, NY.

UNKNOWN
U176 "MONTHLY REPORT OF AIRINC/AIRLINE INDUSTRY PARTICIPATION IN NASA A15-1 SATELLITE VHF COMMUNICATIONS EXPERIMENT." MAR 67
: AERONAUTICAL RADIO INC., ANNAPOLIS, MARYLAND.

UNKNOWN
U190 "DESCRIPTION OF A15-2." MAY 66.

UNKNOWN
0212 "PEACESAT STAFF BULLETIN -- ISSUE NO. 15, 16, 17, 18." APR-JUL 73; PEACESAT, MANOA TERMINAL.

UNKNOWN
0219
TECHNIC, WELLINGTON, NEW ZEALAND.
"SATELLITE-A WEEKLY PUBLICATION ON PROGRESS OF PEACESAT EXPERIMENT AT WELLINGTON POLYTECHNIC." NOV 74; WELLINGTON POLYTECHNIC, NEW ZEALAND.

UNKNOWN
0221
"CORRESPONDENCE CONCERNING PEACESAT." 1973; HAWAII, WASHINGTON.

UNKNOWN
0225
"1972-73 ANNUAL REPORT OF GEOPHYSICAL INSTITUTE." 1973; UNIVERSITY OF ALASKA, GEOPHYSICAL INSTITUTE, FAIRBANKS, ALASKA.

UNKNOWN
0232
"PRELIMINARY REPORT EXPERIMENTAL SATELLITE SYSTEM FOR ALASKA." AUG 70; GSFC, GREENBELT, MARYLAND.

UNKNOWN
0233
"RF NETWORK ON LAND, ON SEA, IN THE AIR." GENERAL ELECTRIC, RESEARCH AND DEVELOPMENT, SCHENECTADY, N.Y.

UNKNOWN
0240
"MONTHLY REPORT OF ARIAC/AIRLINE INDUSTRY PARTICIPATION IN NASA ATS-3 VHF COMMUNICATIONS EXPERIMENT." MAY 67; AERONAUTICAL RADIO INC., ANNAPOLIS, MARYLAND.

UNKNOWN
0277
"REPORT ON ALASKA BIOMEDICAL COMMUNICATIONS EXPERIMENT." MAR 1973, UNKNOWN.

UNKNOWN
0294
S-1 AND ATS-3." UNKNOWN.
"CHRONOLOGICAL HISTORY OF AIRLINE SATELLITE COMMUNICATIONS TESTING WITH THE NASA APPLICATIONS TECHNOLOGY SATELLITES, AT S-1 AND ATS-3." UNKNOWN.

UNKNOWN
0295
"AIRINC/AIRLINES SATCOM PROGRAM." MAR 1968; AERONAUTICAL RADIO INC., ANNAPOLIS, MARYLAND.

UNKNOWN
0297
"SATELLITE: THE PEACESAT BULLETIN." SEP 19, 1975; WELLINGTON, NEW ZEALAND.

UNKNOWN
0308
"IONOSPHERIC SCINTILLATION MEASUREMENT." 1969; SPENGLY LIMITED, ENHAM ARCH, NEWBURY ROAD, ANDOVER, HAMPS. ENGLAND.

UNKNOWN
0322
C 566. FIRST RELEASED IN AEC LETTER 68-1-49, MAY 13, 1968.
"AIRBORNE VHF COMMUNICATIONS TRANSMITTER AND MARK 1 VHF SATELLITE COMMUNICATIONS (SATCOM) SYSTEM", AIRINC CHARACTERISTICS.

UNKNOWN
UN19
GENEVA, SWITZERLAND. SEPT. 1968.
"ACTIVE COMMUNICATION- SATELLITE EXPERIMENTS - RESULTS OF TESTS AND DEMONSTRATIONS." INTERIM MEETING OF STUDY GROUP IV.

UNKNOWN
UN21
"CONTRIBUTIONS TO METEOROLOGICAL SATELLITE RESEARCH." METEOROLOGISCHE AMBANDLUNGEN, 1968.

UNKNOWN
US20 "NASA ACTIVITIES." MAR 1977, NEWSPAPER ARTICLE.

UNKNOWN
US26 "PUBLIC SERVICE SATELLITE CONSORTIUM." MAR 1977, CORRESPONDENCE.

UNKNOWN
US28 "APPALACHIAN TEACHERS STUDY VIA ATS-6." JUNE-JULY 1974, APPALACHIA, JUNE-JULY 1974, JOURNAL ARTICLE, E.J. 100727.

UNKNOWN
US30 "ATS USED FROM 1966-77." 1977, REQUEST FOR USE OF ATS SATELLITE.

UNKNOWN
US32 "ATS-6 COMING HOME." NOVEMBER 1976, NEWSPAPER ARTICLE.

UNKNOWN
US35 "THE CASE AGAINST SATELLITES." 1974, REPORT.

UNKNOWN
US60 "COMMUNICATIONS TECHNOLOGY SATELLITE." JAN 1976, INDEX OF USERS.

UNKNOWN
US72 "ATS-6 HEALTH EXPERIMENT: INDIAN HEALTH SERVICE, ALASKA NAMI EXPERIMENT IN REGIONALIZED MEDICAL EDUCATION, SEATTLE, WASHING-
GTON, PHASE 1." DEC 1974, UNIVERSITY OF WASHINGTON-PROJECT OFFICE, ATS-6 HEALTH EXPERIMENT MANAGEMENT & TECHNICAL OPERATIONS, S

UNKNOWN
US73 "ATS-6 HEALTH EXPERIMENT: INDIAN HEALTH SERVICE, ALASKA NAMI EXPERIMENT IN REGIONALIZED MEDICAL EDUCATION, SEATTLE, WASHING-
GTON, PHASE 2." DEC 1975, UNIVERSITY OF WASHINGTON, PROJECT OFFICE, ATS-6 HEALTH EXPERIMENT MANAGEMENT & TECHNICAL OPERATIONS, S

UNKNOWN
US623 "ALASKA ATS-6 HEALTH/EDUCATION TELECOMMUNICATIONS EXPERIMENT." SEP 1975, GOVERNOR'S OFFICE OF TELECOMMUNICATIONS, JUNEAU, A
LASKA, TECHNICAL REPORT, EORS ED 119068.

UNKNOWN
US624 "ALASKA ATS-6 HEALTH/EDUCATION TELECOMMUNICATIONS EXPERIMENT." SEP 1975, GOVERNOR'S OFFICE OF TELECOMMUNICATIONS, JUNEAU, A
LASKA, EXECUTIVE SUMMARY, EORS ED 119068.

UNKNOWN
US627 "SATELLITE TECHNOLOGY DEMONSTRATION." SEP 1975, FEDERATION OF ROCKY MOUNTAIN STATES, DENVER, COLO., EXECUTIVE REPORT, EORS ED
115260.

UNKNOWN
US635 "NASA FACTS." 1975, NASA, NEWSPAPER ARTICLE.

UNKNOWN
US663 "THE APPLICATIONS TECHNOLOGY SATELLITE METEOROLOGICAL DATA CATALOG, VOLUME 5 FINAL CATALOG, 1 AUG. 1969-25 MAY 1970." MAR
1970, ALLIED RESEARCH ASSOCIATES, INC. CONCORD, MASS., DATA CATALOG, 71M 26(21).

UNKNOWN
US689 "ALASKA EDUCATION EXPERIMENT. VOLUME 3. APPENDICES F THROUGH J." 30 SEPT. 1975, GOVERNOR'S OFFICE OF TELECOMMUNICATIONS
JUNEAU, ALASKA., TECHNICAL REPORT, ED 119070.

UNKNOWN
US692 "SACI PROJECT PROGRESS REVIEW MEETING." APR. 1972, PROGRESS REPORT, M72-20959.

UNKNOWN
0703 "PEACESAT FACE SHEET." 1977, PEACESAT PROJECT, UNIVERSITY OF HAWAII, HONOLULU, HAWAII, INFORMAL NOTES.

UNKNOWN
0720 "IMPLICATIONS OF THE ALASKA EDUCATION SATELLITE COMMUNICATIONS DEMONSTRATION FOR TECHNOLOGICAL AND EDUCATIONAL POLICYMAKERS - VOLUME 2: SUPPORTING MATERIALS." NOVEMBER 1975, PRACTICAL CONCEPTS INCORPORATED, 1730 RHODE ISLAND AVENUE, N.W., SUITE 200, WASHINGTON, D.C.

UNKNOWN
0721 "A REVIEW OF ORGANIZATIONS INFLUENCING RADIO FREQUENCY ALLOCATIONS TO DEEP SPACE RESEARCH." AUGUST 1976, NATIONAL SCIENTIFIC LABORATORIES, WESTGATE RESEARCH PARK, MCLEAN, VIRGINIA 22101, TECHNICAL REPORT, M17-19287.

UNKNOWN
0725 "SATELLITE TECHNOLOGY DEMONSTRATION - FINAL REPORT." OCTOBER 1975, FEDERATION OF ROCKY MOUNTAIN STATES, INC., 2900 WEST 26TH AVENUE, DENVER, COLORADO 80211, TECHNICAL REPORT.

UNKNOWN
0726 "IMPLICATIONS OF THE ALASKA EDUCATION SATELLITE COMMUNICATIONS DEMONSTRATION FOR TELECOMMUNICATIONS AND EDUCATION POLICYMAKERS - EXECUTIVE SUMMARY." NOVEMBER 1975, PRACTICAL CONCEPTS INCORPORATED, 1730 RHODE ISLAND AVENUE, N.W., SUITE 200, WASHINGTON, D.C.

UNKNOWN
0727 "IMPLICATIONS OF THE ALASKA EDUCATION SATELLITE COMMUNICATIONS DEMONSTRATION FOR TELECOMMUNICATIONS AND EDUCATION POLICYMAKERS - VOLUME 1 - ANALYSIS OF THE DEMONSTRATION." NOVEMBER 1975, PRACTICAL CONCEPTS INCORPORATED, 1730 RHODE ISLAND AVENUE, N.W., SUITE 200, WASHINGTON, D.C.

UNKNOWN
0736 "NASA ACTIVITIES." SEPTEMBER 1977, AMERICAN RED CROSS, WASHINGTON, D.C., NEWSPAPER ARTICLE.

UNKNOWN
0738 "LEWIS NEWS." JANUARY 1977, NEWSPAPER ARTICLE.

UNKNOWN
0751 "USING SATELLITE TECHNOLOGY TO INCREASE PROFESSIONAL COMMUNICATIONS AMONG TEACHERS: A REPORT OF EXPERIMENTS CONDUCTED BY THE NATIONAL EDUCATION ASSOCIATION." AUGUST 1975, NATIONAL EDUCATION ASSOCIATION, DIVISION OF INSTRUCTION AND PROFESSIONAL DEVELOPMENT, REPORT 2. OCTOBER 1975, HAWAII UNIVERSITY, HONOLULU, HAWAII, TECHNICAL REPORT, ED 120 895.

UNKNOWN
0752 "PEACESAT PROJECT SOCIAL APPLICATIONS: EARLY USES OF INTERNATIONAL TWO-WAY COMMUNICATIONS BY SATELLITE FOR SOCIAL DEVELOPMENT, REPORT 2." OCTOBER 1975, HAWAII UNIVERSITY, HONOLULU, HAWAII, TECHNICAL REPORT, ED 120 895.

UNKNOWN
0754 "THE APPALACHIAN EDUCATION SATELLITE PROJECT - FINAL REPORT." 1976, APPALACHIAN EDUCATION SATELLITE PROJECT, ALEXINGTON, NEW YORK, TECHNICAL REPORT, ED 125 595.

UNKNOWN
0766 "AIS-F DATA BOOK." MAY 1974, GODDARD SPACE FLIGHT CENTER, GREENBELT, MARYLAND 20771, DATA BOOK.

UNKNOWN
0774 "PUBLIC SATELLITE." 29 OCT 1977, JOURNAL ARTICLE.

UNKNOWN
0780
-C.-TECHNICAL REPORT.
"A COMPENDIUM OF UNITED STATES CTS EXPERIMENTS."MAR 1970,JOINT COUNCIL ON EDUCATIONAL TELECOMMUNICATIONS, WASHINGTON, D

UNKNOWN
0795
919."MAY 1977,UNIVERSITY OF THE SOUTH PACIFIC, SUVA, FIJI,PROPOSAL.
"A SUBMISSION FOR THE EXTENSION OF THE UNIVERSITY OF THE SOUTH PACIFIC SATELLITE COMMUNICATION EXPERIMENT IN 1978 AND 1

UNKNOWN
0813
974,PRACTICAL CONCEPTS INCORPORATED, 1030 FIFTEENTH STREET, N.W., SUITE 940, WASHINGTON, D.C., 20005,TECHNICAL REPORT,ED 0
"DESIGN FOR AN ANALYSIS AND ASSESSMENT OF THE EDUCATION SATELLITE COMMUNICATIONS DEMONSTRATION: FINAL REPORT."J7 MAY 1

UNKNOWN
0816
974,PRACTICAL CONCEPTS INCORPORATED, 1030 FIFTEENTH STREET, N.W., SUITE 940, WASHINGTON, D.C., 20005,TECHNICAL REPORT,ED 093 329.
"INTENSIVE EVALUATION OF SATELLITE TV IMPACT ON FOUR ALASKAN VILLAGES."MAY 1974,PRACTICAL CONCEPTS INCORPORATED, 1030 F

UNKNOWN
0909
0, UNIVERSITY OF MINNESOTA, BIBLIOGRAPHY.
"COMPLETE BIBLIOGRAPHY OF PUBLICATIONS UNDER THE UNIVERSITY OF MINNESOTA ATS-6 SYNCHRONOUS ORBIT SATELLITE PROGRAM."197

UNKNOWN
0926
LITE CONSORTIUM, 4040 SORRENTO VALLEY BLVD., SAN DIEGO, CA., 92121, TECHNICAL REPORT, HTIS: N70-10347.
"DEVELOPING SATELLITE COMMUNICATIONS FOR PUBLIC SERVICE: PROSPECTS IN FOUR SERVICE AREAS."SEPT 77, PUBLIC SERVICE SATE

UNKNOWN
0930
100 579.
"PACIFIC EDUCATIONAL COMPUTER NETWORK STUDY."MAR 75, UNIVERSITY OF HAWAII, HONOLULU, HAWAII, TECHNICAL REPORT, ERIC: ED

UNKNOWN
0939
JUNEAU, ALASKA, TECHNICAL REPORT, OTHER: ED 150 703.
"PLANNING TO MEET ALASKA EDUCATIONAL NEEDS THROUGH TELECOMMUNICATIONS."JAN 77, GOVERNOR'S OFFICE OF TELECOMMUNICATIONS,

UNKNOWN
0940
POUCH F, STATE OFFICE BUILDING, JUNEAU, ALASKA, 99811, TECHNICAL REPORT, OTHER: ED 162 611.
"EDUCATIONAL TELECOMMUNICATIONS FOR ALASKA."JAN 1977, ALASKA DEPARTMENT OF EDUCATION, OFFICE OF PLANNING AND RESEARCH,

UNKNOWN
0941
REPORT, OTHER: ED 160 546.
"SATELLITE TELEVISION DEMONSTRATION PROJECT."MAR 77, GOVERNOR'S OFFICE OF TELECOMMUNICATIONS, JUNEAU, ALASKA, TECHNICAL

UNKNOWN
0943
1 POLICY RESEARCH CENTER, WERNHILL LANE, SATOP, SYRACUSE, NEW YORK, 13210, PROGRESS REPORT, ERIC: ED 103 019.
"STUDY OF EDUCATION SATELLITE COMMUNICATION DEMONSTRATION."JAN 75, SYRACUSE UNIVERSITY RESEARCH CORPORATION, EDUCATIONA

UNKNOWN
0949
30 FIFTEEN STREET, N.W., SUITE 940, WASHINGTON, D.C., 20005, PROGRESS REPORT, ERIC: ED 101 732.
"STUDY OF EDUCATION SATELLITE COMMUNICATIONS DEMONSTRATION (ESCD): ALASKA."SEPT 74, PRACTICAL CONCEPTS INCORPORATED, 10

UNKNOWN
0951
1W STREET, N.W., SUITE 940, WASHINGTON, D.C., 20005, PROGRESS REPORT, ERIC: ED 101 733.
"STUDY OF EDUCATION SATELLITE COMMUNICATIONS DEMONSTRATION: ALASKA."DEC 74, PRACTICAL CONCEPTS INCORPORATED, 1030 FIFTE

UNKNOWN
U992 "THE INSTITUTE FOR COMMUNICATION RESEARCH - ANNUAL REPORT 1975 - 1976." OCT 1976, STANFORD UNIVERSITY, STANFORD, CALIF
PMA, 94305, TECHNICAL REPORT, OTHER: ERIC ED 339 168.

UNKNOWN (NASA AND HEW)
1003 "HEALTH-EDUCATION TELECOMMUNICATIONS EXPERIMENT (HEE) EXPERIMENT SUMMARY DESCRIPTION." FEB 1979, NASA AND HEW, TECHNICAL
1 MEMORANDUM, INDEX OF USERS, NTIS: N77-01703, NASA: NASA-1M-74700.

UNKNOWN (NASA)
0970 "NASA RETRIES ATS-6." AUG 79, NASA/GSFC, GREENBELT, MARYLAND, JOURNAL ARTICLE.

UNKNOWN (NASA)
U979 "A COMPENDIUM OF MILLIMETER WAVE PROPAGATION STUDIES PERFORMED BY NASA." DEC 1977, NASA, TECHNICAL REPORT, NTIS: N70-29
309, NASA: NASA-CR-156793.

UNKNOWN (PUBLIC HEALTH REPORTS).
U855 "A TO EXPAND EXPERIMENTS WITH SATELLITE COMMUNICATION FOR MEDICAL CONSULTATION." 1976, PUBLIC HEALTH REPORTS, JOURNAL
ARTICLE.

UNKNOWN (PUBLIC SERVICE SATELLITE CONSORTIUM ENGINEERING DEPARTMENT)
U977 "EARTH STATION DESIGN AT 12/14 GHz." JULY, 1977, PUBLIC SERVICE SATELLITE CONSORTIUM, 2400 WEST 26 AVENUE, SUITE 900, D
ENVER, COLORADO 80211, TECHNICAL REPORT, NTIS: N77-33239, NASA: NASA-CR-152597.

UNKNOWN (PUBLIC SERVICE SATELLITE CONSORTIUM)
1000 "A FREQUENCY STUDY FOR PUBLIC SERVICES USERS OF SATELLITE TELECOMMUNICATIONS." MAR 1977, FEDERATION OF ROCKY MOUNTAIN S
TATES, 2400 WEST 26TH AVENUE, SUITE 3000, DENVER, COLORADO, 80211, TECHNICAL REPORT, ERIC: ED 140310.

UNKNOWN (STATE OF CALIFORNIA)
1004 "PORTABLE SATELLITE COMMUNICATIONS STATIONS FOR USE BY PUBLIC EMERGENCY SERVICES." APRIL 1977, STATE OF CALIFORNIA, DEP
ARTMENT OF GENERAL SERVICES, COMMUNICATIONS DIVISION, 2025 19TH STREET, SACRAMENTO, CALIFORNIA, 95819, TECHNICAL MEMORANDUM

UNKNOWN (STATE OF CALIFORNIA)
1005 "SATELLITE COMMUNICATION EXPERIMENTS IN PUBLIC EMERGENCY SERVICES." JULY 1978, STATE OF CALIFORNIA, DEPARTMENT OF GEN
AL SERVICES, COMMUNICATIONS DIVISION, SACRAMENTO, CALIFORNIA, 95819, TECHNICAL MEMORANDUM.

UNKNOWN (TAMOW)
U997 "COMMUNICATIONS TECHNOLOGY SATELLITE OR COLUMBUS WITH THE SHORELINE RAG." FEB 1979, TAMOW, JOURNAL ARTICLE, ERIC: EJ106
301 MCSU1630.

UNKNOWN (WESTINGHOUSE ELECTRIC CORPORATION)
U980 "COMMUNICATIONS LINE CHARACTERIZATION EXPERIMENT (CLCE)." JAN 1977, WESTINGHOUSE ELECTRIC CORPORATION, DEFENSE AND ELEC
TRONIC SYSTEMS CENTER, P.O. BOX 1693, BALTIMORE, MARYLAND, 21203, TECHNICAL REPORT, NTIS: N78-29308, NASA: NASA-CR-156709.

UNKNOWN.
U805 "MARITIME COMMUNICATION EXPERIMENTS AND SEARCH - AND - RESCUE EVALUATIONS WITH THE NASA ATS-6 SATELLITE. VOLUME 1-SUMM
ARY." MAY 1977, U.S. DEPARTMENT OF TRANSPORTATION, TRANSPORTATION SYSTEM CENTER CAMBRIDGE, MA. 02142, INFORMATION FROM FINAL RE

UNKNOWN.
U808 "ALASKA EDUCATION EXPERIMENT. VOLUME 2. APPENDICES A THROUGH E." 30 SEPT. 1975, GOVERNOR'S OFFICE OF TELECOMMUNICATION
S, JUNEAU, ALASKA, TECHNICAL REPORT, ED 14069.

USAF SPACE AND MISSILE SYSTEMS ORGANIZATION (SAMSO) LOS ANGELES, CA
0039 SEE AUTHOR : BARNLA, J.D.

USAF SPACE AND MISSILE SYSTEMS ORGANIZATION (SAMSO) LOS ANGELES, CA
0261 SEE AUTHOR : BARNLA, J.D.

VAHMEH, C.M. "ATS MILLIMETER WAVE PROPAGATION EXPERIMENT." MARTIN MARIETTA CORP. NOV. 1970.
0432

VAN DER FLUIT, P.J.
0950 SEE AUTHOR : DIJK, J.

VAHATTA, L.C. "COMMUNICATIONS AND NAVIGATION SATELLITES AS AERONAUTICAL AIDS." NASA- ELECTRONICS RESEARCH CENTER, CAMBRIDGE, MASS. 19
0410 67.

VOGEL, W.J. "CTS ATTENUATION AND CROSS POLARIZATION MEASUREMENTS AT 11.7 GHZ." ELECTRICAL ENGINEERING RESEARCH LABORATORY, THE UNIVE
0898 RSITY OF TEXAS AT AUSTIN, 10100 BURNET ROAD, AUSTIN, TEXAS, 78758, TECHNICAL REPORT, NTIS: N79-16173, NASA: NASA-CR-159918

VOGEL, W.J. "ATTENUATION DIVERSITY MEASUREMENTS AT 20 AND 30 GHZ." MAR 1976, JOURNAL ARTICLE, 76A 27106.
0600

VOLMER, ELDON
0509 SEE AUTHOR : BOOR, JOHN L.

VON BRAUN, W.
0614 "ATS-6 AND THE FUTURE." OCT 1975, JOURNAL ARTICLE, EJ 130005.

VONBUN, F.O.
0865 SEE AUTHOR : SCHMID, P.E.

VONBUN, F.O. "GRAVITY ANOMALY DETECTION-APOLLO-SOYUZ." DEC 75, GODDARD SPACE FLIGHT CENTER, GREENBELT, MARYLAND, 20771, TECHNICAL MEM
0870 ORANDUM, NASA: TM-X-7106.

VONBUN, F.O. "PROBING THE EARTH'S GRAVITY FIELD USING SATELLITE-TO-SATELLITE TRACKING (SST)." FEB 76, NASA, GODDARD SPACE FLIGHT CENT
0902 ER, GREENBELT MD., GREENBELT, MARYLAND, 20771, TECHNICAL MEMORANDUM, NTIS: N76-28716, NASA: NASA-TM-X-71142, ORIGINATOR: X

VONBUN, F.O. "GEODYNAMICS EXPERIMENT MA-128." DEC 77, NASA/GSFC, GREENBELT, MARYLAND, TECHNICAL REPORT, NASA: SP-412.
0906

VONBUN, F.O. "GRAVITY ANOMALIES DETERMINED FROM TRACKING THE APOLLO-SOYUZ." DEC 77, NASA/GSFC, GREENBELT, MARYLAND, 20771, TECHNICAL
0907 MEMORANDUM, NASA: TM 78.

VONBUN, F.O. "S GRAVITY FIELD BY MEANS OF SATELLITE-TO-SATELLITE TRACKING." 1977, NASA/GSFC, GREENBELT, MARYLAND, J
0908 OURNAL ARTICLE.

VONBUM, F.O.
U911 "ORBIT DETERMINATION ACCURACIES USING SATELLITE-TO-SATELLITE TRACKING." NOV 78, NASA/GSFC, GREENBELT, MARYLAND, JOURNAL A
RECEIVED.

VONBUM, F.O.
U986 SEE AUTHOR : SCHMID, P.E.

VONDER HAAR, T.H.
U059 SEE AUTHOR : REYNOLDS, D.W.

VONDER HAAR, T.H.
U070 SEE AUTHOR : STAMM, A.-J.

VONDER HAAR, T.H.
U111 "A PILOT STUDY ON THE APPLICATION OF GEOSYNCHRONOUS METEOROLOGICAL SATELLITE DATA TO VERY SHORT RANGE TERMINAL FORECAST
ING." SEP 1970, SPACE SCIENCE AND ENGINEERING CENTER, UNIV. OF WISCONSIN, TECH. REPT., AFCRL-70-0493, CONTRACT NO. F19628-

VONDER HAAR, T.H.
U415 SEE AUTHOR : SUOMI, V.E.

VONDER HAAR, T.H.
U475 "PHENOMENOLOGY OF CONVECTIVE RING CLOUDS IN THE TROPICS DERIVED FROM GEOSYNCHRONOUS SATELLITE'S OBSERVATIONS." UNIV. OF
WISCONSIN, 1967.

VONDER HAAR, T.H.
U497 "METEOROLOGICAL APPLICATIONS OF REFLECTED RADIANCE MEASUREMENTS FROM ATS - 1 AND ATS - 3." UNIV. OF WISCONSIN, 1968.

VONDER HAAR, T.H.
U545 SEE AUTHOR : REYNOLDS, D.W.

VONDER HAAR, T.H.
U639 SEE AUTHOR : SIKULA, G.-J.

WAEIJEN, R.-M.
U611 SEE AUTHOR : HANAS, O.-J.

WAGNER, N.-M.
U600 SEE AUTHOR : VOGEL, M.-J.

WALCOFF, P.
U724 SEE AUTHOR : O'NEILL, J.-J.

WALKER, R. J.
U900 "ATS-6 SYNCHRONOUS ORBIT TRAPPED RADIATION STUDIES WITH AN ELECTRON-PROTON SPECTROMETER." NOVEMBER 1975, SCHOOL OF ASTR
ONOMY AND PHYSICS, UNIV OF MINNESOTA, MINNEAPOLIS, MINN, JOURNAL ARTICLE.

WALLING, VIC
U120 "INTERACTION BETWEEN USERS AND THE TECHNOLOGY." MAR 73, PROG. REPT., CONTRACT NO. NASA MGR 05-020-659 (NASA).

WALP, H.-M.
U931 "DEVELOPMENT OF SATELLITE-BASED TELECOMMUNICATION IN ALASKA." SEPTEMBER 1979, ROBERT M. WALP, OFFICE OF TELECOMMUNICATION
ONS, 225 CONDOVA STREET, ANCHORAGE, ALASKA 99501, SYMPOSIUM PRESENTATION, ORIGINATOR NO.: IAF-79-F-278, ATAA: A79-53390.

WARE, J.N.
0472 "VHF SHIPBOARD TESTS ON U.S. COAST GUARD CUTTER GLACIER, FINAL REPORT." U.S.C.G., WASHINGTON RADIO STATION, ALEXANDRIA,
VA. MAY 1968.

WARE, J.N.
0474 SEE AUTHOR : JOHNSON, M.R.

WARE, J.N.
0475 "VHF SHIPBOARD TESTS FROM OCEAN STATION DELTA." U.S.C.G., WASHINGTON RADIO STATION, ALEXANDRIA, VA. JAN. 1969.

WARE, J.N.
0664 "ATS SATELLITE COMMUNICATIONS TESTS." MAY 1969, COAST GUARD WASHINGTON RADIO STATION ELECTRONICS ENGINEERING LAB, ALEXANDRIA, VA., TECHNICAL REPORT, AD-687 978.

WARREN, G.
0409 "THE FIRST COLOR PICTURE OF THE EARTH TAKEN FROM THE ATS-3 SATELLITE." NASA-GSFC. FEB. 1968.

WARREN, E.S.
0772 SEE AUTHOR : ALMOND, J.

WASHINGTON UNIVERSITY
0222 SEE AUTHOR : MORGAN, R.P.

WASON, C.B.
0673 SEE AUTHOR : DUBOSE, J.F.

WATANABE
0697 SEE AUTHOR : TSUCHIYA, K.

WATKINS, P.L.
0873 SEE AUTHOR : GOODMAN, J.M.

WATSON, J.S.
0646 "ATS SIMULTANEOUS AND TURNAROUND RANGING EXPERIMENTS." NOV. 1971, TECHNICAL REPORT, NTZ 27885.

WATSON, P.A.
0798 "A SUMMARY AND ASSESSMENT OF THE 20/30 GHZ ATS-6 PROPAGATION DATA COLLECTED DURING THE EUROPEAN PHASE." JAN 1978, ESTEC,
NOORDWIJK, THE NETHERLANDS, PAPER.

WATSON, P.A.
0956 SEE AUTHOR : MCEWAN, N.J.

WATSON, P.A.
0964 "ATTENUATION AND CROSS-POLARIZATION MEASUREMENTS AT 20 GHZ USING THE ATS-6 SATELLITE WITH SIMULTANEOUS RADAR OBSERVATION."
OCT 1977, UNIVERSITY OF BRADFORD, BRADFORD, UK, TECHNICAL REPORT, NTIS: NT8-15346.

WAX, DAVID W.
0179 "STATUS ON UH/ALOHA PARTICIPATION IN THE ATS-1 COMPUTER COMMUNICATIONS EXPERIMENT." SEP 74; UNIVERSITY OF HAWAII, THE
ALOHA SYSTEM, HONOLULU, HAWAII.

WEDEMEYER, C. A.
0315 "THE NEXT FRONTIER: POTENTIALS AND PROBLEMS OF INTERNATIONAL-INTERCULTURAL EDUCATION VIA SATELLITES." JAN 1969; UNIVERSITY OF WISCONSIN, MADISON, WISCONSIN, TEXT OF ADDRESS.

WEDEMEYER, C. A.
0316 "EDSAT: A PLAN FOR EDUCATIONAL DIFFUSION AND THE SOCIAL APPLICATION OF SATELLITE TELECOMMUNICATIONS." 1969; UNIVERSITY OF WISCONSIN, MADISON, WISCONSIN, PROPOSAL.

WEDEMEYER, C. A.
0317 "EDSAT: WHAT, WHY, HOW." JUL 1969; UNIVERSITY OF WISCONSIN, MADISON WISCONSIN, PROPOSAL.

WEDEMEYER, C.A.
0170 SEE AUTHOR : LAWSON, R.G.

WEDEMEYER, D.
0272 SEE AUTHOR : FILEP, R.I.

WEINBERGER, C.
0294 "APPLICATIONS OF EARTH RESOURCES TECHNOLOGY TO HUMAN NEEDS." JUNE 1975, NASA EARTH RESOURCES SURVEY SYMPOSIUM, LYNDON B. JOHNSON SPACE CENTER, GROUND STATION, TEXAS. PAPER, 76N-26639, 76N-26631.

WELLINGTON POLYTECHNIC
0210 SEE AUTHOR : HANLEY, A.

WELLINGTON POLYTECHNIC
0297 SEE AUTHOR : UNKNOWN

WELLS, P.I.
0984 "THE ATTENUATION OF UHF RADIO SIGNALS BY HOUSES." AUGUST 1976, U.S. DEPARTMENT OF COMMERCE, OFFICE OF TELECOMMUNICATIONS, INSTITUTE FOR TELECOMMUNICATION SCIENCES, 325 BROADWAY, BOULDER, COLORADO, 80302, TECHNICAL REPORT, N115, PB-258 447.

WELLS, W.I.
0870 SEE AUTHOR : VONBUN, F.O.

WELLS, W.I.
0906 SEE AUTHOR : VONBUN, F.O.

WELLS, W.I.
0907 SEE AUTHOR : VONBUN, F.O.

WESTINGHOUSE DEFENSE AND SPACE CENTER
0468 "ATS COMMUNICATION INTEGRATION MOJAVE GROUND STATION, FINAL REPORT." JUNE 1967.

WESTINGHOUSE DEFENSE AND SPACE CENTER
0471 "SMALL USER USE OF THE ATS MULTIPLE ACCESS SHF TRANSPONDER." BALTIMORE, MD. NASA - GSFC. MAY 1967.

WESTINGHOUSE ELECTRIC CORPORATION
0258 SEE AUTHOR : MARITIME ADMINISTRATION

WESTINGHOUSE ELECTRIC CORP.
0492 "ENVIRONMENTAL MEASUREMENTS EXPERIMENT ON THE APPLICATIONS TECHNOLOGY SATELLITE (MISSIONS ATS-A AND ATS-B)." AUG. 1966.

WESTINGHOUSE ELECTRIC CORP.
 U637 "MARITIME MOBILE SATELLITE COMMUNICATIONS TESTS PERFORMED ON S.S. SANTA LUCIA" 1969, WESTINGHOUSE ELECTRIC CORP BALTIMORE
 , MD., TECHNICAL REPORT, PB 183 971.

WESTINGHOUSE ELECTRIC CORP.
 U638 "A1S-5 RANGING RECEIVER AND L-BAND EXPERIMENT, VOLUME 2, DATA REDUCTION AND ANALYSIS." DECEMBER 1971, WESTINGHOUSE ELECTRIC
 CORPORATION, BALTIMORE, MARYLAND, TECHNICAL REPORT, M74 29500.

WESTINGHOUSE ELECTRIC CORPORATION
 U670 "INTEGRATED L-BAND EXPERIMENT." MAR. 1975, WESTINGHOUSE ELECTRIC CORPORATION DEFENSE AND ELECTRONIC SYSTEMS CENTER ELECTRIC
 ONIC SYSTEM SUPPORT DIVISION BALTIMORE, MARYLAND, PROGRESS REPORT, 75X 10237.

WESTINGHOUSE ELECTRIC CORPORATION
 U653 "CIS COMMUNICATIONS LINK CHARACTERIZATION EXPERIMENT." AUG 77, WESTINGHOUSE ELECTRIC CORPORATION, DEFENSE AND ELECTRONIC
 C SYSTEMS CORPORATION, P.O. BOX 1693, BALTIMORE, MARYLAND, 21203, TECHNICAL REPORT, NASA: CR-156801.

WESTWOOD, D.H.
 U039 SEE AUTHOR : BARNLA, J.D.

WESTWOOD, D.H.
 U261 SEE AUTHOR : BARNLA, J.D.

WETTER, R.
 U019 SEE AUTHOR : RODGER, M.

WETTER, R.
 U933 SEE AUTHOR : BRAMBLE, W.J.

WHALEN, A. A.
 U508 "HEALTH EDUCATION TELECOMMUNICATIONS EXPERIMENT." OCT 1975, ELECTRONICS AND AEROSPACE SYSTEMS CONVENTION WASHINGTON, D.C
 ., PAPER, 76A 40676.

WHALEN, A.A.
 U543 "A SATELLITE FOR HUMAN NEEDS." 21-23 JULY 1975, NASA GODDARD SPACE FLIGHT CENTER, GREENBELT, MARYLAND, JOURNAL ARTICLE, A75-3
 B035.

WHALEN, ALBERTA A.
 U509 SEE AUTHOR : BOOK, JOHN L.

WHELLDON, K.A.
 U673 SEE AUTHOR : DUBOSE, J.F.

WHILSHIRE, R.B.
 U020 SEE AUTHOR : DIAMBRA, H.M.

WHITE, S.C.
 U060 "COMMENTS ON PROPOSAL FOR THE CONTINUED USE OF NASA A1S-1 SATELLITE FOR ALASKA." MAY 1973, NASA MN-1, SCIENTIFIC ACTIVI
 TIES FOR LIFE SCIENCES, PROPOSAL EVALUATION.

WHITTON, C.
 U019 SEE AUTHOR : RODGER, M.

WHITTON, C.
 U933 SEE AUTHOR : BRAMBLE, W.J.

WIEBE, J.J.
 U704 "PROJECT LOOK UP." JAN. 1976, PROJECT LOOK UP, INC. P.O. BOX 5106, CLEARWATER, FL. 33510, INFORMAL NOTES.

WICHMAN, E. J.
0207 SEE AUTHOR : BLACHMER, R. H.

WIGREN, H. E.
0206 "USING SATELLITE TECHNOLOGY TO INCREASE PROFESSIONAL COMMUNICATIONS AMONG TEACHERS." AUG 75; NEA, WASHINGTON, D.C.

WILEY, P.H.
0670 SEE AUTHOR : STUTZMAN, W.L.

WILEY, P.H.
0802 SEE AUTHOR : BOSTIAN, C.W.

WILEY, P.H.
0919 SEE AUTHOR : BOSTIAN, C.W.

WILEY, P.H.
0990 SEE AUTHOR : BOSTIAN, C.W.

WILEY, P.H.
0991 SEE AUTHOR : BOSTIAN, C.W.

WILKE, J.L.
0942 "EDUCATIONAL TELECOMMUNICATIONS ALTERNATIVES FOR ALASKA. PRODUCT 1." JAN 76, GOVERNOR'S OFFICE OF TELECOMMUNICATIONS, JUNEAU, ALASKA, TECHNICAL REPORT, ED 162 610.

WILLARD, H.M.
0274 "TESTS OF SYSTEMS FOR MEDICAL COMMUNICATIONS VIA ATS-1." AUG 1973, UNIVERSITY OF WASHINGTON, DEPT OF ELECTRICAL ENGINEERING, SEATTLE, WASHINGTON.

WILLETT, M.W.
0773 "THE USE OF SATELLITES IN BROADCASTING IN THE U.S.A." MAY 1977, PAPER.

WILLIAMS JH., L. (PROFESSOR)
0904 "A RESEARCH FEASIBILITY STUDY PROPOSAL FOR CONDUCTING EXPERIMENTAL RESEARCH IN CURRICULUM SHARING VIA COMMUNICATIONS TECHNOLOGY SATELLITE AMONG INSTITUTIONS HAVING LARGE MINORITY ENROLLMENTS." SEP 70, NORTH CAROLINA AGRICULTURAL AND TECHNICAL

WILSON, S.G.
0776 "AIR TRAFFIC CONTROL EXPERIMENTATION AND EVALUATION WITH THE NASA ATS-6 SATELLITE, VOL 6: MODEM EVALUATION TEST." SEP 1976, BOEING, SEATTLE, WASH, TECHNICAL REPORT.

WILSON, S.G.
0778 SEE AUTHOR : THOMPSON, A.D.

WILSON, M.R.
0531 "HEALTH CARE IN ALASKA VIA SATELLITE." JUL 1975, PAPER.

WILSON, M.R.
0709 "PROGRAM PACKAGES: FY 1977." OCTOBER 1976, OFFICE OF PROGRAM DEVELOPMENT, ALASKA AREA NATIVE HEALTH SERVICE, ANCHORAGE, ALASKA, 99510, PROPOSAL.

WILSON, M.R.
0712 "HEALTH STATUS OF THE ALASKA NATIVE PEOPLE." AUGUST 1969, ALASKA NATIVE MEDICAL CENTER, ANCHORAGE, ALASKA 99510, PAPER.

WILSON, M.R.
U713
R1.
"CONTEMPORARY HEALTH OF ALASKA NATIVES." JULY 1972, ALASKA AREA NATIVE HEALTH SERVICE, ANCHORAGE, ALASKA 99510, PROGRESS REPORT.

WILSON, S.G.
0552
SEE AUTHOR : SCHROEDER, E.H.

WILSON, S.G.
0556
SEE AUTHOR : SUTTON, R.W.

WILSON, S.G.
0687
SEE AUTHOR : SCHROEDER, E.H.

WILTSE, J.C.
0696
SEE AUTHOR : DEES, J.W.

WINCKLER, J. R.
0688
SEE AUTHOR : WALKER, R. J.

WISHNA, S.
0402
ORD.
"WEFAX - WEATHER DATA RELAY COMMUNICATIONS EXPERIMENT." SEPT. 1968 . GODDARD SPACE FLIGHT CENTER, WASHINGTON, D.C., REC

WISHNA, S.
0425
1969.
"OBSERVATIONS ON VHF COMMUNICATIONS BETWEEN A SYNCHRONOUS SATELLITE RELAY AND EARTH GROUND STATIONS." NASA-GSFC. SEPT.

WISHNA, S.
0450
SEE AUTHOR : GREAVES, J. R.

WISHNA, S.
0643
01.
"NASA BALLOON AIRCRAFT RANGING DATA AND VOICE EXPERIMENT." MAY 1972, NASA GSFC GREENBELT, MARYLAND, TECHNICAL REPORT, 72N 256

WITHERS, D.-J.
0204
"PROPOSAL FOR UK SHIP/SHORE TEST USING ATS-3." JUL 70; POST OFFICE, TELECOMMUNICATIONS HQG., LONDON, ENGLAND.

WITHERSPOON, J.-P.
0824
SEE AUTHOR : MORWOOD, F.W.

WOLESZKA, L.J.
1806
SEE AUTHOR : GATFIELD, A.G.

WOLF, D.-E.
0080
SEE AUTHOR : ENDLICH, R.M.

WOLFF, L.A., EDITOR
0866
"PUBLIC SERVICE COMMUNICATIONS SATELLITE USER REQUIREMENTS WORKSHOP." JAN 7, COMMUNICATIONS AND NAVIGATION DIVISION, GODDARD SPACE FLIGHT CENTER, GREENBELT, MARYLAND, 20771, TECHNICAL MEMORANDUM, NTIS: N77-20290, NASA: TM-X-74629.

WOLFSON, J.A.
0683
SEE AUTHOR : GUTWEIN, J.M.

WONG, A.-Y.
0008
"APPLICATION FOR USE OF ATS-3 TRANSPONDER TO DIAGNOSE WAVE EXCITATION PROCESSES IN THE IONOSPHERE." SEP 1974, UNIVERSITY OF CALIFORNIA, LOS ANGELES, ULPT. OF PHYSICS, APPLICATION FOR USE OF ATS SATELLITE.

WOOD, F.B.
0851 "VIDEOCONFERENCING VIA SATELLITE: OPENING CONGRESS TO THE PEOPLE." FEB 78, THE GEORGE WASHINGTON UNIVERSITY PROGRAM OF POLICY STUDIES IN SCIENCE AND TECHNOLOGY, WASHINGTON, D.C., 20052, SUMMARY REPORT, NASA: CR-157258.

WOOD, F.B.
0945 "VIDEOCONFERENCING VIA SATELLITE: OPENING CONGRESS TO THE PEOPLE." FEB 78, GEORGE WASHINGTON UNIVERSITY, PROGRAM OF POLICY STUDIES IN SCIENCE AND TECHNOLOGY, WASHINGTON, D.C., 20052, TECHNICAL REPORT, NTIS: NTIS-27309, ERIC: ED 162 646.

WOODCOCK, G.W.
0097 "ELECTRICITY MAKING SATELLITE PROPOSED." 25 JUN 1975, BOEING AEROSPACE CO., SEATTLE, NEWSPAPER ARTICLE *** THE DAYTON DAILY NEWS, JUN 1975 ***.

WOOLEY, W.L.
0571 SEE AUTHOR : GRIFFITH, C.G.

WOODMAN, R.
0698 SEE AUTHOR : POMALAZA, J.

WOUGHTIER, W.R.
0634 "DATA COLLECTION OPERATIONAL SUPPORT SYSTEM." FEDERATION OF ROCKY MOUNTAIN STATES, 2400 W. 26 AVE. SUITE 3000, DENVER, COLO.
- 80211, TECHNICAL REPORT, CR 144746.

WOUSE, A.M.
0710 SEE AUTHOR : ROBERTS, J.M.

WRIGHT, D.L.
0976 "THE COMMUNICATIONS TECHNOLOGY SATELLITES AND THE ASSOCIATED GROUND TERMINALS FOR EXPERIMENTS." LEWIS RESEARCH CENTER AND COMMUNICATIONS RESEARCH CENTRE, OTTAWA, CANADA, TECHNICAL MEMORANDUM, NTIS: NTIS-30220, NASA: NASA TM X-71761.

WUNNENBERG, M.
0110 SEE AUTHOR : EDBAUER, F.

YAMAMOTO, M.
0598 "A TIME COMPARISON EXPERIMENT PERFORMED BY SSRA SYSTEM VIA ATS-1." MAR 1976, JOURNAL ARTICLE, 76A 41747.

YARNELL, S.R.
0275 SEE AUTHOR : REYNOLDS, D.M.

YEH, M.C.
0910 SEE AUTHOR : UMENT, R.

YOSHINO, I.
0618 "LOW-LATITUDE WHISTLERS AND CLOUD DISTRIBUTIONS IN THE CONJUGATE AREA." SEPT 1976, JOURNAL ARTICLE, 76A 44669.

YIEM, P.C.
0093 SEE AUTHOR : BYSTROM, J.W.

YUN-MEI CHANG
0305 "ANALYSIS OF ANVIL GROWTH FROM ATS PICTURES." JUL 1974; UNIV. OF CHICAGO, DEPT OF GEOPHYSICAL SCIENCES, CHICAGO, ILLINOIS.
15.

ZELDERS, F.
 U958 SEE AUTHOR : DIJK, J.

 ZIEMBA, L.
 0925 SEE AUTHOR : GARRETT, M.D.

 ZINSER, E. A.
 U651 SEE AUTHOR : OOLAMU, G. F.

 ZINSEN, E.A.
 U527 SEE AUTHOR : DOMNER, C.W.

 ZINSER, E.A.
 U515 SEE AUTHOR : DOMNER, C.W.

 ZIPSER, E. J.
 U283 "THE ROLE OF ORGANIZED UNSATURATED CONVECTIVE DOWNDRAFTS IN THE STRUCTURE AND RAPID DECAY OF AN EQUATORIAL DISTURBANCE."
 " OCT 69; NCAR, BOULDER, COLORADO, JOURNAL OF APPLIED METEOROLOGY, VOL 8, NR 5.

 ZIPSER, E. J.
 U284 "THE LINE ISLANDS EXPERIMENT, ITS PLACE IN TROPICAL METEOROLOGY AND THE RISE OF THE FOURTH SCHOOL OF THOUGHT." DEC 70;
 NCAR, BOULDER, COLORADO, BULLETIN OF THE AMERICAN METEOROLOGICAL SOCIETY, VOL 51, NR 12.

 ZIPSER, E.-J.
 0100 "A CATALOGUE OF METEOROLOGICAL DATA OBTAINED DURING THE LINE ISLANDS EXPERIMENT FEBRUARY-APRIL 1967." JAN 1968, HAWAII
 INSTITUTE OF GEOPHYSICS, UNIVERSITY OF HAWAII, TECH. REPT. INATIONAL CENTER FOR ATMOSPHERIC RESEARCH.

 ZUCKERMAN, L.
 0501 SEE AUTHOR : AARONS, J.

 ZWAS, F.
 0114 SEE AUTHOR : MORITA, Y

SECTION 4

KEYWORD VERSUS ASSESSION NUMBER

As mentioned in Volume 1, Section 6, each experiment had associated with it keywords that were used to identify experiment topics or categories. Keywords were also used to identify the topic of reports. This use of keywords is an aid to coupling reports with experiments.

ABSOLUTE TRANSMITTER POLARIZATION
0918

AERIAL PHOTOGRAPHY
0656, 0667

AERONAUTICAL SATELLITE
0861

AEROSAT
0552, 0607, 0641, 0686, 0687, 0734, 0776, 0791, 0806, 0824,
0844, 0878, 0881

AFRICAN CULTURE
0947

AGRICULTURE
0066, 0067, 0538, 0948

AIDSAT
0520

AIR MASSES
0581

AIR TRAFFIC CONTROL
0195, 0404, 0438, 0444, 0458, 0478, 0643, 0653, 0657, 0673,
0686, 0775, 0776, 0777, 0778

AIR-GROUND COMMUNICATIONS
0174, 0400, 0462, 0464, 0473, 0482

AIRCRAFT
0004, 0010, 0020, 0021, 0023, 0042, 0173, 0240, 0241, 0242,
0259, 0294, 0295, 0308, 0438, 0463, 0490, 0493, 0636, 0643,
0645, 0806, 0824

AIRCRAFT ANTENNA
0604, 0791, 0809, 0988

AIRCRAFT COMMUNICATIONS
0174, 0176, 0556, 0809, 0844, 0881, 1007

ALASKA

0011, 0030, 0034, 0040, 0046, 0049, 0052, 0054, 0060, 0061,
0062, 0098, 0122, 0123, 0124, 0125, 0126, 0127, 0128, 0129,
0140, 0141, 0142, 0143, 0146, 0147, 0148, 0149, 0153, 0154,
0155, 0161, 0162, 0163, 0164, 0165, 0166, 0167, 0168, 0169,
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0713, 0714, 0765, 0801, 0804, 0813, 0815, 0816, 0857, 0931,
0939, 0940, 0941, 0942, 0943, 0949, 0950, 0951, 0998, 1000,
1001, 1002, 1003, 1010

ALBERTA NATIVE COMMUNICATIONS SOCIETY

0799

ALGERIA

0570

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SECTION 5
ACCESSION NUMBER AND REPORT NUMBER

INTRODUCTION

Some of the reports that have been identified in this report are available through other data bases. These reports can be ordered by one of the following methods.

5.1 HOW TO ORDER A REPORT

5.1.1 NTIS

National Technical Information Service
Springfield, VA 22161

Reports available from NTIS can be ordered directly from them. Prepayment helps to expedite your order and this can be accomplished through the use of an NTIS Deposit Account, check money order or American Express Card account number. For ship and bill items NTIS charges \$5 extra for each order.

5.1.2 ERIC

Eric Document Reproduction Service
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Arlington, VA 22210

Order by ED number and specify either microfiche or papercopy. Enclose check or money order payable to EDRS or enclose authorized original purchase order. Each order must include page charges as well as shipping fees.

5.1.3 AIAA

Technical Information Service
American Institute of Aeronautics and Astronautics, Inc.
555 West 57th Street
New York, N. Y. 10019

Documents are available from the AIAA Technical Information Service. Paper copies are available at \$7.00 per document up to a maximum of 40 pages, the charge for each additional page is \$0.25. Microfiche of documents are available

at the rate of \$3.00 per microfiche for individual documents.

5.1.4 NASA

NASA Scientific and Technical Information Facility
P. O. Box 8757
Baltimore Washington International Airport
Maryland 21240

Documents from NASA are usually available from NTIS, using the N accession number. Use the instructions which are listed under NTIS.

5.1.5 OATS

Institute for Scientific Information
3501 Market Street
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5.1.6 EJ

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5.1.7 EI

Engineering Societies Library
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5.2 ACCESSION NUMBER VERSUS REPORT NUMBER

This section lists UDRI's Accession number of each report versus any report number or numbers that the report might have. For those reports which do not have any report number, they can be obtained by writing to the authors of this report.

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Accession Number	NTIS	ERIC	AIAA	NASA	OTHER
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Accession Number	NTIS	ERIC	AIAA	NASA	OTHER
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Accession Number	NTIS	ERIC	AIAA	NASA	OTHER
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Accession Number	NTIS	ERIC	AIAA	NASA	OTHER
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Accession Number	NTIS	ERIC	AIAA	NASA	OTHER
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Accession Number	NTIS	ERIC	AIAA	NASA	OTHER
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Accession Number	NTIS	ERIC	AIAA	NASA	OTHER
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Accession Number	NTIS	ERIC	AIAA	NASA	OTHER
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